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Whole Earth

Access to Tools, Ideas, and Practices Spring 2002



THE GEOGRAPHY OF HEALTH

School kids who grow their own food

Rescuing endangered cultures

Confronting prostate cancer

Is "organic" healthy?



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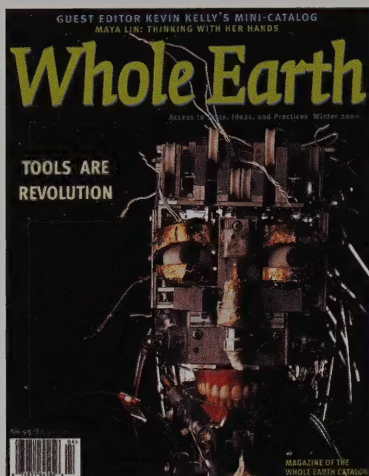
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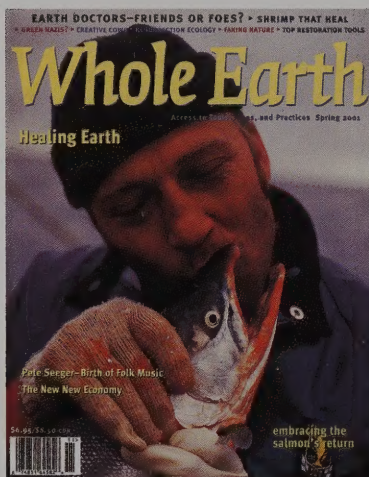
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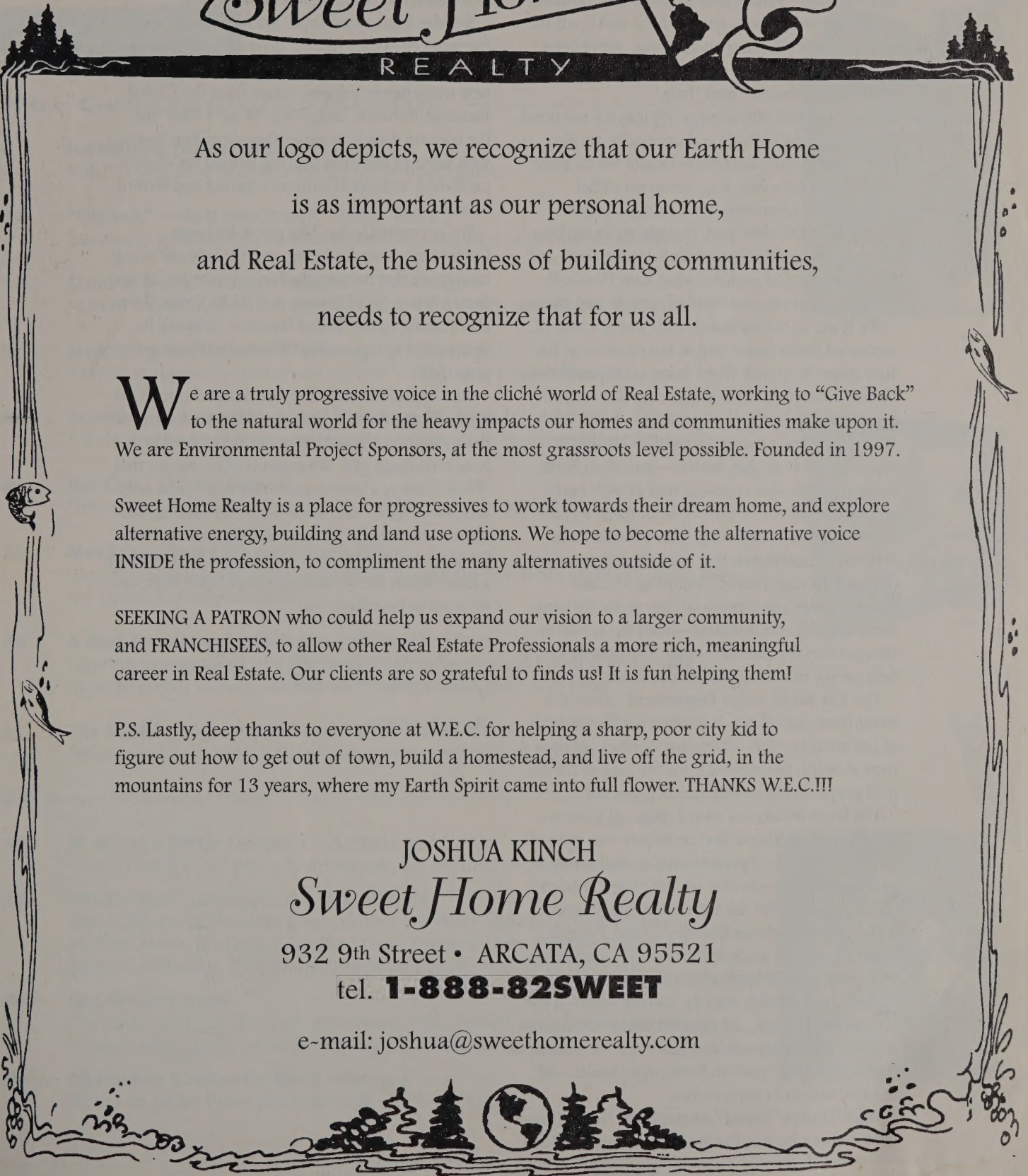
P.S. Lastly, deep thanks to everyone at W.E.C. for helping a sharp, poor city kid to figure out how to get out of town, build a homestead, and live off the grid, in the mountains for 13 years, where my Earth Spirit came into full flower. THANKS W.E.C.!!!

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Much of this issue focuses on small-scale maps in the health atlas—resources for personal and planetary health found in backyards, families, neighborhood schools, geographical and spiritual communities. Working on the issue, we've been reminded again of the etymological kinship of "health," "wholeness," and "holy."

Peter Warshall writes (page 77) that it's not possible just to think globally and act locally; we also need to act globally and think locally. We do some of all of that here (see, e.g., pieces on global activism and alternative news sources, pages 88–92). For the most part, though, we're sticking closer to home this time around: local actions and organizations that perform what Ram Dass calls "heart-to-heart resuscitation" on people and places.

We begin in the backyard, with 7Song's tour of medicinal herbs found within ten minutes of his door (page 6). Susun Weed (page 12) expands the herbal discussion, while suggesting that "organic" can conceal as much as it reveals.

David Kupfer's survey (page 16) of "ecofolk" music reminds us that healers—including Earth healers—work with music as well as with herbs and medicines. Larry Dossey, M.D. (page 20) discusses research supporting what cultures have believed for millennia: that spiritual communities can heal through prayer. "Surviving Prostate Cancer" (page 22) is personal, but along the same lines...finding communities—from the family to strangers on the Internet—that are available to help people make health-care decisions.

The San Rafael Police Department, across the street from our offices, is piloting a different kind of community effort—bringing together police and mental health professionals for the sake of mentally ill people living on our streets (page 26).

The latest Mead2001 award (page 33) goes to a small group in Bhopal that continues—in spite of government and corporate inaction, and sometimes opposition—to care for their city's residents eighteen years after the Union Carbide disaster.

Our cover article on Berkeley's Food Systems Project (page 38) is about local action—beginning with gardens in schools and scaling up to the level of the school district, the city, and the farms of the surrounding region...all directed toward changing complex local, national, and international systems that are creating crises in both public health and the well-being of communities.

Wade Davis's "Naked Geography of Hope" (page 57) brings us back to the local/global union. When

the communities that preserve cultural diversity fall or are pushed off the human map, the world becomes a less healthy place for everyone.

Besides this central focus, we hope as always that the issue embodies healthy diversity—an environmentally friendly camper design by J. Baldwin; new tools; nearly a dozen essays from the Global Business Network, imagining "What's Next" for the coming decade; a remembrance of Ken Kesey, with some of the most moving writing we've ever published; reviews of women's comics and dozens of new books.

We're especially thankful to the Bioneers Conference—just for being, and for help obtaining transcripts that became the basis for the pieces by Susun Weed, Larry Dossey, and Wade Davis. We're also grateful to the Global Business Network for permission to reprint the "What's Next?" essays (page 66).

Our last issue must have struck some chords, or pushed some buttons, because it inspired some of the most impassioned letters we've received in a long time (page 96). We mean it when we say that *Whole Earth* is a conversation. We don't print only articles we agree with (as if we on the staff agreed about everything!). We hope to feed your appetite for ideas and perspective, and to push your borders a little. When we do, we hope you'll push back, and we want to hear from you.

Michael K Stone

Managing Editor



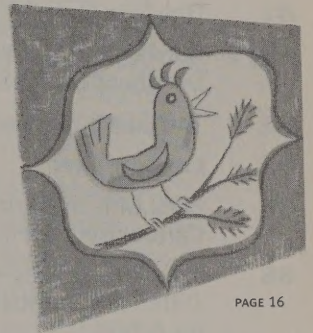
Table of Contents

The Geography of Health

- 6 **Herbalizing the Back Forty** • *7Song*
Natural medicine within ten minutes of your house.
- 12 **"Organic" — Is It Healthier?** • *Susun Weed*
Soybeans pollute, tofu causes dementia, capsuled herbs are poisonous...
- 16 **Ecofolk: Music for Earth Healers** • *David Kupfer*
Activist music by the next Pete Seegers, Kate Wolfs, and Woody Guthries.
- 20 **Measuring the Power of Prayer** • *Larry Dossey, M.D.*
Research suggests consciousness can change the physical world.
- 22 **Surviving Cancer with a Lot of Help from My Friends** • *Michael K. Stone*
Whole Earth editor finds communities to help with treatment decisions.
- 26 **Doc Cop** • *Cherine Badawi*
Officer Joel Fay helps mentally ill homeless people get off the street and into care.
- 33 **Mead2001 Award Winner** • *Emily Polk*
Bhopal's Sambhavna Clinic continues to care for survivors eighteen years after the Union Carbide disaster.
- 38 **A Food Revolution in Berkeley** • *Michael K. Stone*
Fighting malnutrition and disease, teaching ecological literacy, and giving hope to family farmers begins with kids growing their own food.
- 57 **The Naked Geography of Hope** • *Wade Davis*
Death and life in the ethnosphere: saving endangered cultures.



PAGE 38



PAGE 16

Other Features

- 62 **JB Builds a Better Camper** • *J. Baldwin and Liz Fial*
"Since RVs are not going to disappear, we decided to demonstrate a better way."
- 66 **What's Next? Looking to the Next Decade**
Global Business Network predictions from *Peter Schwartz, Paul Hawken, Michael Hertz, Jay Ogilvy, Orville Schell, Gwynne Dyer, Richard Rodriguez, Betty Sue Flowers, Alex Singer, Freeman Dyson, and Peter Warshall.*
- 78 **Ken Kesey: Furthur**
The writer and cultural icon remembered by Stewart Brand, with reprints of some of his most personal writing for *Whole Earth.*
- 90 **Alternative Sources for News** • *Pat Holt*
Where to go for news you can trust.



PAGE 78

Books & Tools

- 11 The Straight Path of the Spirit • Bones of the Master
- 25 Fibroids • The Not-So-Scary Breast Cancer book
- 28 American Homelessness
- 29 Having Faith • The Price of Motherhood • The Baby Book • Sticks and Stones • Circle Round • Kids, Parents, and Power Struggles • Mothering • California Homeschooler
- 32 The Underground History of American Education • Fighting Invisible Tigers • Highs!
- 36 Fast Food Nation • Beyond Beef • Hope's Edge • Coming Home to Eat
- 61 Light at the Edge of the World
- 63 Xtreme Cooler
- 64 air force Dental Cleaner • FreeCharge
- 65 Watts Up? • Petzl Zipka Headlamp
- 81 One Flew Over the Cuckoo's Nest
- 83 Garcia • The Deadhead's Taping Compendium • Deadhead Social Science
- 84 The Cosmic Serpent • The Botany of Desire
- 85 Crossing Over
- 86 From Girls to Grrrlz • The Great Women Cartoonists • Eternally Bad
- 88 Take it Personally • One Makes the Difference • Global Uprising • Education for Action
- 92 The Nation on Big Media • PR Watch • Environmental News Network • Faultline
- 93 Bobos in Paradise
- 94 The Operation, Care, and Repair of Farm Machinery • Barns and Outbuildings and How to Build Them • Horses, Mules, and Ponies and How to Keep Them
- 95 The Birds of Heaven • The World and the Wild

Access

- 9 Herb books
- 17 Ecofolk artists
- 19 An ecofolk sampler
- 24 Prostate cancer resources
- 47 Food systems, farms, and schools

Backmatter

- 96 Letters
- 99 Corrections
- 100 Gossip
- 101 Peter Warshall at Large
- 103 Classifieds / Reader Service / Thanks
- 104 Donors

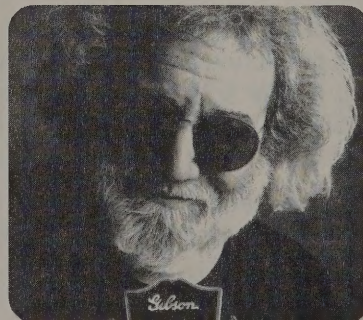
Action Girl



PAGE 86



PAGE 95



PAGE 83

Whole Earth

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Health, History, and an Enraged Beaver

There's a local legend in southeast Alaska about a giant beaver that goes berserk and destroys an entire village. I've been to the site of that village, a magical place beside a salmon stream at the mouth of a limestone grotto, and I've always wanted to know more. Why, for example, was the beaver so pissed off? And just how big was it? So I finally asked a Tlingit elder in Sitka if he knew the story. "Yes," he said. "Would you tell it to me," I asked. "No," he said.

When I pressed him, he politely explained that the story didn't belong to him; it belonged to a different Tlingit clan, and it wasn't his to tell. The other clan held what amounts to an oral copyright, requiring that the story only be told, word-for-word, by an approved clan member who has committed it to memory, in Tlingit. If the ownership isn't honored, if just anyone can tell it, the story gets changed, interpreted, twisted, and ultimately lost. And then, piece by piece, Tlingit history, which is mostly oral, is changed, twisted, and lost.

So what does an enraged beaver have to do with this issue of *Whole Earth*? Just this: We're taking a look at the Geography of Health, the landscape of issues that configure personal and planetary well-being. Native cultures form the threads of a vast tapestry of human diversity and as those cultures erode—as the languages, traditions and myths that define them are lost—the tapestry unravels and the planet is poorer and less healthy. The Tlingit of Alaska know this, and they are tenaciously preserving the remnants of a culture uncomfortably close to extinction. Wade Davis knows this too, and his words and photographs ("The Naked Geography of Hope," page 57) illuminate the lives of people who share knowledge we haven't yet learned to value.

What we eat is another measure of health and, given the epidemiological evidence, we haven't learned much about the value of good, fresh food either. That's why we've committed an unusual amount of space to Mike Stone's story ("A Food Revolution in Berkeley," page 38) about a remarkable project that has used kids growing their own food as the basis for transforming curricula, lunches, the purpose of the food service department, and basic policies of the entire Berkeley School District.

Those stories, and this issue, were drawn together without the incomparable hand of Peter Warshall at the helm. After guiding *Whole Earth* back from its own near-extinction and infusing the magazine with his profound sense of pattern and connection, Peter is stepping away from the center

of the storm to become editor at large, a platform from which he can continue to enlighten and challenge us without having to sweat the daily details. His continued presence is good news for all of us (see page 101 for more from Peter).

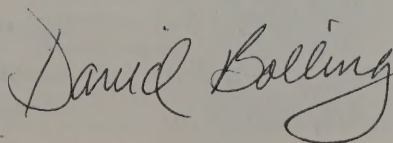
Other good news comes thanks to all of you. Our year-end appeal, sent to only about half our subscribers, flooded us with support. So far you've graced us with more than \$40,000, and we haven't even tallied the matching funds. That comes close to covering the deficit for this issue and inspires us to expand the appeal to the rest of our readers.

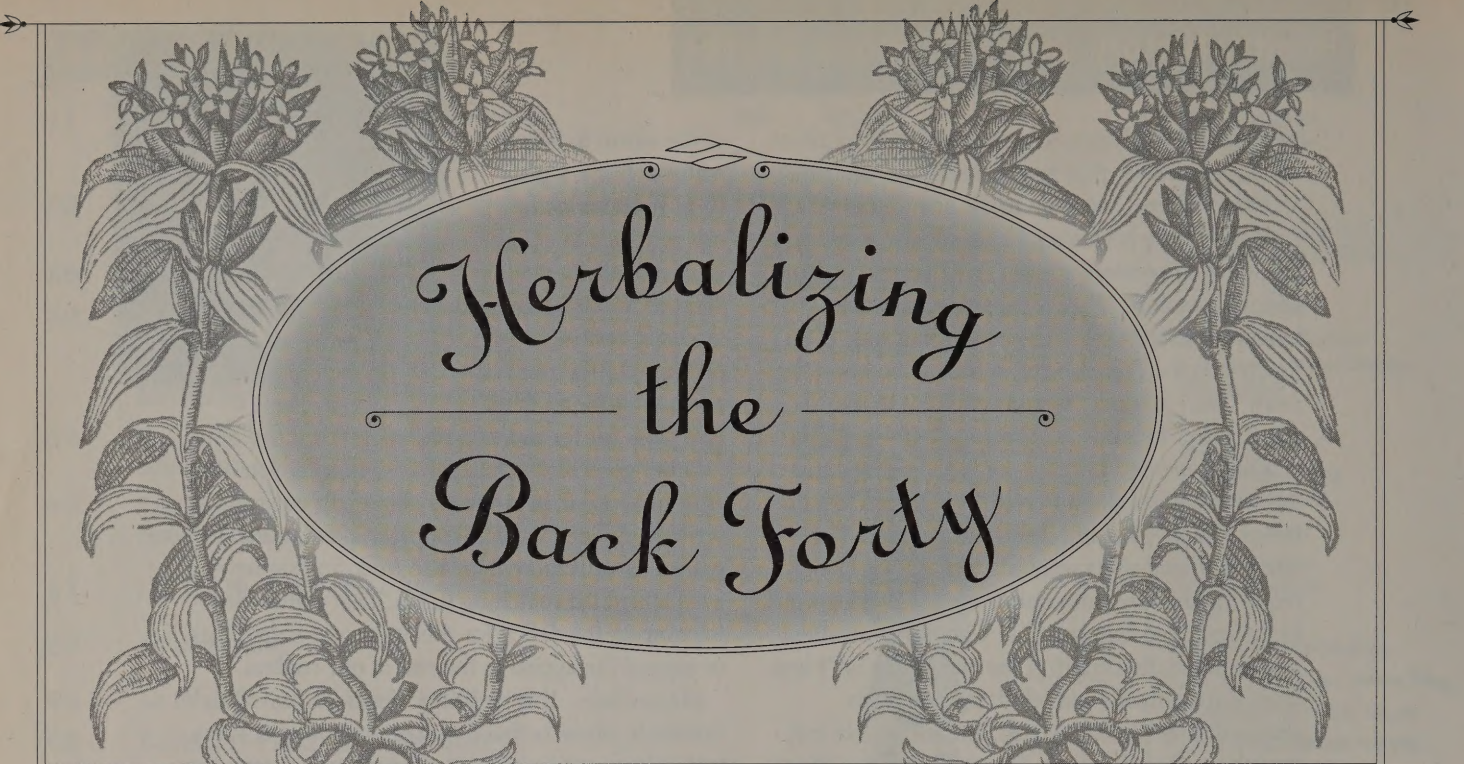
Meanwhile, the Sapling Foundation, which invests in projects that leverage the power of ideas, technology, media and/or markets to improve the world, has given us a major operating grant. Together, we are exploring collaborative efforts that could further strengthen *Whole Earth*. We're excited about this new relationship and grateful for the support.

We're also finalizing plans to launch a subscription campaign aimed at doubling *Whole Earth's* circulation—the best strategy for achieving sustainability. And we're exploring ways to make *Whole Earth* an even better read, for which we need your help. In this issue you'll find a reader survey asking you to tell us what you like and what you don't. You're an incredibly literate and thoughtful bunch of readers, and we need your opinions to guide us. So please complete the form and send it in as soon as possible.

Finally, I have to pay tribute to a very special gift recently received by *Whole Earth*. We've been given computers and printers and software programs but never before a refrigerator. Maybe because we never thought to ask. Pat Perry thought we needed one, perhaps in part to cool the lunches of her husband, Mike Stone. It will be full of beer, Pat, for the party we're having as soon as this issue is in bed. You're invited.

Happy reading,





Herbalizing the Back Forty

Natural Medicine in Your Backyard ✿ By 7Song

Last fall at the Bioneers Conference, 7Song (director of the Northeast School of Botanical Medicine) took about twenty of us on a walk, enthusiastically pointing out dozens of plants, grasses, and barks useful for healing purposes, all growing on the grounds of the Marin County Civic Center. I asked 7Song to give us an herbal tour of his own backyard in Ithaca, New York, so readers could see how much natural medicine lies within a few feet of most people's doorsteps. —EP



7Song

✿ ————— ✿

I'd like to take you on a little jaunt through my backyard here in Ithaca to meet some of the plant denizens I spend much of my time admiring. It's midwinter, a time of respite for the Yankee wildcrafting herbalist. And while this is the season to take care of those nefarious indoor tasks there is also ample opportunity to wend my way amongst the snow-crowned plants.

✿ ————— ✿

As we survey these beauties and discuss their medicinal virtues, please do not get too carried away with notions of utilitarianism. Though many of these plants

have known medicinal and practical uses, they can also be appreciated just for their beauty and place in natural schema.

One group of plants that stands out conspicuously are those lofty and lanky woody perennials, the trees and shrubs. The stately stewards that grow commonly around these Northeastern environs include a long list of plants with notable medicinal properties. The short list includes oak (*Quercus spp.*), black birch (*Betula lenta*), wild cherry (*Prunus serotina*), cramp bark (*Viburnum opulus*), witch hazel (*Hamamelis virginiana*), black walnut (*Juglans nigra*), willow (*Salix spp.*), poplar (*Populus spp.*), buckthorn (*Rhamnus cathartica*), sumac (*Rhus typhina*), and the various conifers including pine (*Pinus spp.*), spruce (*Picea spp.*), and fir (*Abies*).

All of these are within a ten-minute walk of my front door, which is not unusual for these parts. Indeed, most places have a wide array of medicinal plants growing nearby. It is gratifying to know the medicinal virtues of these wondrous beings, and how to work with their limbs and leaves to prepare medicines for a wide assortment of ailments.

Gathering Medicines without Harming the Plants

A few important techniques for gathering medicines from trees and shrubs can limit the damage incurred during the gathering process. First, avoid "girdling" the plant (removing a strip of bark from the circumference of the trunk). Plants' plumbing includes vascular bundles that run throughout their bodies and distribute water and nutrients drawn by their roots and the products of photosynthesis produced in their green leaves. The vascular bundles surround the plant and need to be kept intact. So it is generally better to gather small lateral strips of bark, or better yet to neatly cut off a whole branch. Employing good pruning techniques will help maintain the integrity of plants' health. Use sharp tools to limit tissue damage and prevent infection (think about having a finger cut by a sharp rather than a dull or serrated knife). Remove crowded branches or densely packed-in trees to give others room to grow.

One of trees' and shrubs' main sources for medicine is their bark. There are two types of bark. The outer bark is generally composed of dead tissue, and helps protect the live inner-bark tissue. It is the inner bark (where the vascular bundles lie), that is usually sought out for medicine, as it contains many of the phytoconstituents (plant chemicals) that help mend our mammalian bodies.

Leaves, flowers, roots, fruits, twigs, and insect galls can also be employed as medicine. It may be easiest to categorize tree and shrub medicines according to their medicinal therapeutic qualities: astringent, antimicrobial, anti-inflammatory, antispasmodic, and antitussive.

One preliminary word of warning: always employ discrimination while using any unfamiliar medicine or treating an unknown condition. This caveat could be the credo of this article.



BIRCH



WILLOW

ASTRINGENTS

Used topically, astringents help promote tissue restoration and decrease microbial invasion (i.e., infection) from wounds, which are among the most commonly encountered first aid incidents. This action is accomplished by a group of plant constituents called tannins. They are very common, for they also maintain the integrity and repair damaged tissue of plants. Tannins are often concentrated in bark, though they may be found throughout the plant. They are also plentiful in many insect galls, those odd and fascinating insect casings found attached on plants. Since they are generally applied externally, they are relatively safe to use (though this is not a hard and fast rule in medicine).

One of the best ways to apply tannins is to boil the bark in water for ten minutes or so, and then directly soak the injured part in a basin full of the warm tea, or soak a cloth in the brew and wrap it around the afflicted part. Most woody plants are chock full of tannins though a few are more replete than others. These include

ARNICA

the handsome oak (of which there are numerous species, all useful), and that forest spider, the witch hazel. Other locally common tannin-rich plants include blackberry, raspberry, rose, lady's mantle, agrimony, meadowsweet, and strawberry (all members of the rose family), geraniums, purple loosestrife, and sumacs.



OAK

ANTI-INFLAMMATORIES

Different plants help reduce inflammation in a number of ways. Inflammation, though a natural part of our bodies' healing processes, causes pain, congestion, and discomfort. It is a symptom in a variety of disorders including headache, sinus congestion, asthma, injury, viruses, and allergic responses. These

plants are prepared in several forms for both internal and external use.

Many are somewhat safe, but our warning to employ discrimination with unfamiliar medicines applies here. Some of the superlative anti-inflammatories to be found in our local wood and glen are the willow, poplar, and black

YARROW

birch. Other locals include yarrow, pussytoes, mallow, cudweed, meadowsweet, and chickweed.

ANTIMICROBIAL

Antimicrobial constituents that kill an array of pathogens are a common component of many plants. They are useful to us for the same reason that they are useful to their plant: they ward off and fight the little nasties that cause sundry and untidy infections. Antimicrobials can be applied topically or internally. Among local plants, conifers, oak and black walnut do a swell job of this. If not them, learn to recognize yarrow, garlic, and barberry, along with plant astringents, many of which have some antimicrobial action.

ANTISPASMODICS

Antispasmodic trees and shrubs are not as commonly found around here as some of the other groups. They reduce smooth-muscle cramping, including painful spasms of the uterus, digestive organs, lungs, urinary bladder, and elsewhere. They may be highly efficacious in this, but caution is advised, as cramping may be indicative of a deeper underlying problem. Cramp bark is obviously titularly noted for this action.



BLACKBERRY

Others include peppermint, black cohosh, lobelia, valerian, sundew, thyme, skullcap, and wild lettuce. Plants with anti-inflammatory action may also act as antispasmodics.



ALDER

ANTITUSSIVES

Wild cherry is one of the more renowned antitussive (cough-reducing) plants. Though it is eaten in large amounts by hungry animals, it has a reputation for being poisonous to humans. In small medicinal doses it is considered safe. The inner bark is prepared into teas, tinctures, and syrups. Other antitussives in these parts include coltsfoot, mullein, sundew, and plantain.

I have emphasized "medicinal" plants (mainly woody ones) that grow in my Northeastern back woods, but many of these same plants along with hundreds of other species that are useful medicines occur widely throughout the United States. This includes many species of oak, walnut, willow, and poplar, along with an impressive array of conifers. Commonly encountered shrubs barberry and Oregon graperoot (both *Berberis* species), sumacs, rose, blackberry, raspberry, myrtle, alders and elders.

Herbs found commonly in dif-


ferent parts of the US include yarrow, plantain, dandelion, burdock, mallow, cacti, California poppy, skullcap, pedicularis, potentilla, shepherd's purse, pussytoes, cudweed, Saint-John's-wort, vervain, arnica, chaparral, valerian, passionflower, mustard, garlic, ragweed, sagebrush, self-heal and geranium.

That concludes our little tour. As I've noted, please, oh please, be cautious when administering any medicines. Herbal medicines have a reputation for being "safe." While many are, some are not. Dosage and preparation are other

important variables to consider. As with learning any new skill, study up. A good book to learn how to

Always employ
discrimination while using any
unfamiliar medicine or treating an unknown
condition. This caveat could be the
credo of this article.

prepare herbal medicines is James Green's *The Herbal Medicine Maker's Handbook* (see access).

Please be considerate and conscientious for the health of the plants you gather. Pay attention to their needs and their valuable place in the ecosystem. They are much more than commodities to be exploited. They are harbingers of beauty and tranquility. 

**NORTHEAST SCHOOL
OF BOTANICAL MEDICINE**
PO Box 6626,
Ithaca, NY 14851
607/539-7172, www.7song.com

Best Herb Resources

Herb books proliferate like weeds. Thanks to master herbalists 7Song and Kat Harrison (and Henrietta Kress's and Michael Moore's websites) for their recommendations. These have the best pictures with the clearest texts. —EP

For Starting Out

PHARMACIST'S GUIDE TO MEDICINAL HERBS

Arthur M. Presser
2000; 373 pp.
\$14.95 (\$19.90 postpaid)
Smart Publications,
PO Box 4667,
Petaluma, CA 94955
800/976-2783,
www.smart-publications.com

Big print, fun, informative text. Great for beginners.

COMMON HERBS FOR NATURAL HEALTH

Juliette de Bairacli Levy
1997 (expanded ed.); 223 pp.
\$11.95. Ash Tree Publishing

By one of the most famous herbalists in the world. Great chapter on gathering, preparing, and preserving common herbs. Excellent for those who want to learn more about herbs whose names they may already recognize.

THE HERBAL MEDICINE MAKER'S HANDBOOK

A Home Manual
James Green
2000; 384 pp.
\$18.90. Crossing Press

Kathleen Harrison and 7Song avidly recommend this home manual.

General Herbiana

A CITY HERBAL

Maida Silverman
1990; 181 pp.
\$13.95. Ash Tree Publishing

A guide for the picking of "wild herbs of abandoned lots, parks and sidewalks."

PLANTING THE FUTURE Saving Our Medicinal Herbs

Rosemary Gladstar
and Pamela Hirsch
2000; 310 pp.
\$22.95. Healing Arts Press

Dozens of herbalists share personal experiences with many of the medicinal herbs currently threatened by development, pollution, and overharvesting.

Michael Moore's Regional Herbal Guides

Regarded by many herbalists as classics, these are the best, most comprehensive regional guidebooks out there. Great for area-specific info.

MEDICINAL PLANTS OF THE DESERT AND CANYON WEST

1989; 184 pp.
\$13.95. Museum of
New Mexico Press

MEDICINAL PLANTS OF THE MOUNTAIN WEST

1979; 200 pp.
\$13.95. Museum of
New Mexico Press

HEALING HERBS OF THE UPPER RIO GRANDE Traditional Medicine of the Southwest

L.S.M. Curtin, revised and
edited by Michael Moore
1997; 236 pp.
\$14.95. Western Edge Press

Best Women's Herbal Books

HERBAL HEALING FOR WOMEN

Simple Home Remedies for
Women of All Ages
Rosemary Gladstar
1993; 303 pp.
\$13. Simon & Schuster

My favorite. Gladstar's gentle voice informs about preparing remedies, salves, oils, and tinctures as well as picking the highest quality herbs. For women of all ages.

**WOMEN'S HERBS,
WOMEN'S HEALTH**

Christopher Hobbs and
Kathi Keville
1998; 240 pp.
\$16.95. Interweave Press

How to prepare everything from yogurt douches to bladder-infection massage oil. Comprehensive, original, with great pictures and interesting facts.

HEALING WISE

Wise Woman Herbal
Susun S. Weed
1989 (10th anniversary ed);
295 pp.
\$12.95. Ash Tree Publishing

CHILDBEARING YEAR

Wise Woman Herbal
Susun S. Weed
1986; 171 pp.
\$9.95. Ash Tree Publishing

NEW MENOPAUSAL YEARS

The Wise Woman Way
Alternative Approaches for
Women 30-90
Susun S. Weed
2002; 280 pp.
\$12.95. Ash Tree Publishing

BREAST CANCER?

BREAST HEALTH!
The Wise Woman Way
Susun S. Weed
1996; 358 pp.
\$14.95. Ash Tree Publishing

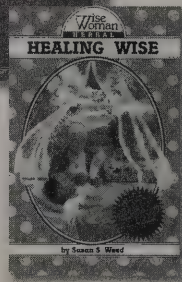
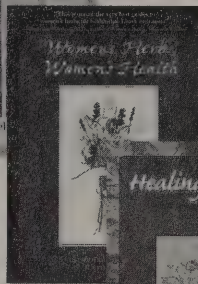
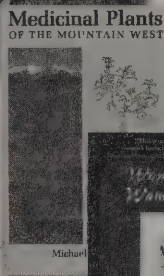
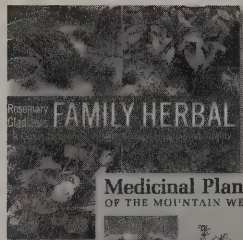
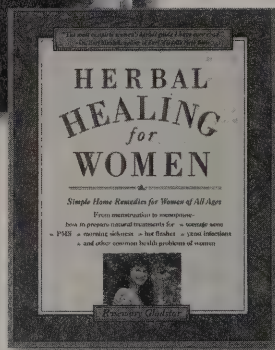
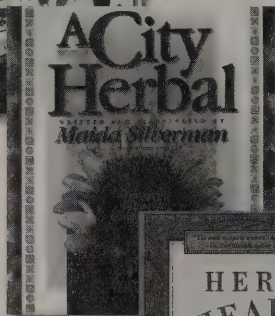
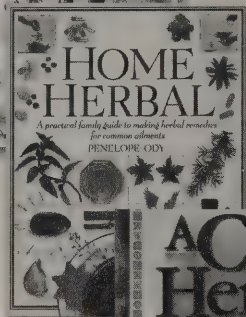
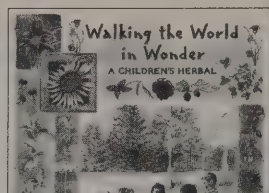
Books by Susun Weed (see p. 12) are fun, easy to read, and all driven by the energy, emotion, and wisdom she practices as one of the world's leading herbalists.

**Herbal Books
for Families**

FAMILY HERBAL

A Guide to Living Life with
Energy, Health, and Vitality
Rosemary Gladstar
2001; 400 pp.
\$24.95. Storey Books

Practical, easy recipes for cold remedies, treating infections, achieving "radiant beauty," tips for harvesting—a huge amount of herbal info for families of all ages.



**WALKING THE WORLD
IN WONDER**

A Children's Herbal
Ellen Evert Hopman
2000; 152 pp.
\$19.95. Healing Arts Press

A magical book for kids aged 5 to 10. Big color photos and easy-to-understand text.

KIDS, HERBS, HEALTH

Practical Solutions for
Your Child's Health, from
Birth to Puberty
Linda B. White
and Sunny Mavor
1998; 272 pp.
\$21.95. Interweave Press

Natural alternative remedies. Especially helpful about when to call a doctor and when ailments can be treated at home.

HOME HERBAL

A Practical Family Guide to
Making Herbal Remedies for
Common Ailments
Penelope Ody
1995; 144 pp.
\$19.95. Dorling Kindersley

Stefan, our designer, carries this book around with him in his briefcase. He says it's one of the best designed herb books he's seen. It "shows nice diagrams like the one of a middle-aged man with kids that explains what herbs they should be taking."

Herbal Magazines

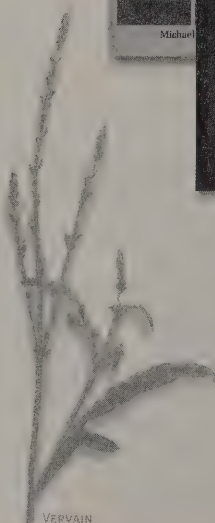
THE HERB COMPANION

Dawna Edwards, ed.
\$24/year (6 issues)
Herb Companion Press,
PO Box 7714,
Red Oak, IA 51591-0714
800/456-5835,
www.discoverherbs.com

HERBS FOR HEALTH

Amy Mayfield, ed.
\$24/year (6 issues)
Herb Companion Press,
PO Box 7708,
Red Oak IA 51591-0708
800/456-6018,
www.discoverherbs.com

The Herb Companion concentrates on herb enthusiasts (gardeners, cooks, crafters, etc.) with horticultural advice, recipes, and other how-to info. Herbs for Health is dedicated to bringing news about the values of the herbs to the general public. Lots of herb ads in both, but also useful articles and access to schools, conferences, and books.



Fijian Spiritual Healing

The significance of the ancestral gods was an innate part of my growing up in Fiji. As a child, I woke up to the sound of villagers' rhythmic morning drums or the conch signaling the return of the fishermen from the sea. These sounds made me feel received into the day.

Katz, who brought his young family to live in Fiji for almost two years, reveals both common and uncommon rituals still practiced, and describes them vividly. He captures the depth of Fijian spirituality from simple healing arts to complex rituals and ceremonies like the meke ni vula (moon dance). The Fijian tradition is embedded in the ancestral gods, "the spirit of the dead ancestors." The spirits go back many generations, well beyond recently deceased relatives. Katz shows us that these healing practices are intricate and significant threads in the well-founded and peacefully accepted spirituality. For example, before a bavelo (dugout canoe) is put to sea, a ritual is performed so that the canoe spirit is introduced to the sea gods, whales, sharks, and dolphins.

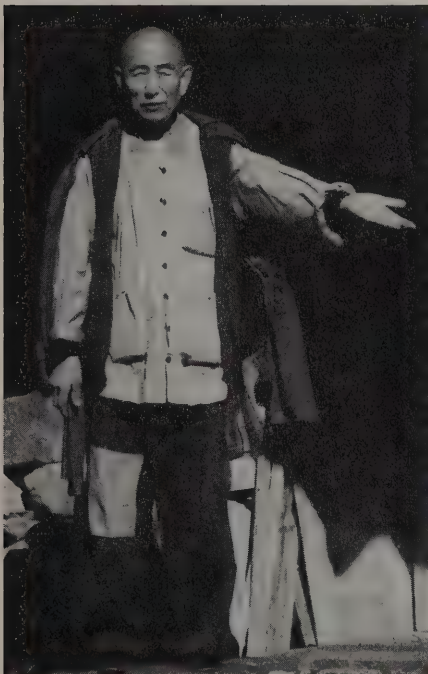
The healing practices are intended to sustain, celebrate, and end life. (They are not entirely void of intentions to kill one another.) Fijian healers are divided into two groups: one that heals the ills of the people and the other that fulfills the satisfactions of the ill-intended. If a villager wrongly farms on someone else's land, the landowner may do a yaqona (kava) ceremony where the kava drinking goes on into late night with the intention to bring harm to the usurper. —Sunita Dutt

“Trying to follow the “straight path” is the way I learn about it—just as Fijian healers do. The straight path becomes known as one struggles to find and stay on it. For Fijians, it is a powerful metaphor for the way all persons should live, and healers especially are expected to make the arduous journey it requires. The path deals with varying textures of ordinary life situations and how their challenges should be met. To travel the straight path demands attributes such as honesty, respect, service and humility.

“On the night of Alipate's death, a man was seen doing a “dance to the moon” (*meke ni vula*). Alone and naked on the Tovu Beach, thinking he was unseen, he danced wildly, even feverishly, looking up at the moon, bowing down to it. Everyone understands the meaning of the dance: it is a traditional expression of thanksgiving to the *Vu* for answering one's wish to have another person killed.



The Straight Path of the Spirit
Ancestral Wisdom and Healing Traditions in Fiji
Richard Katz
1999; 413 pp.
\$19.95
Park Street Press



Tsung Tsai in front of his house in Woodstock. “Come to my home. I will make tea. Noodles. We can talk poetry.”

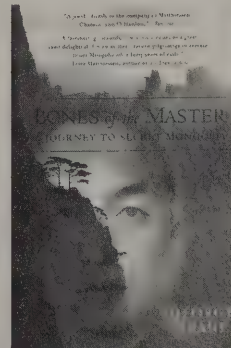
On the Road to Inner Mongolia

The only remaining monk from the Yin Shan mountains of Inner Mongolia decides to return to Communist China from Woodstock, New York to find the bones of his teacher and help invigorate Buddhism. He is in his seventies and accompanied (like Don Juan accompanied by Castaneda) by a foil, his neighbor and poet George Crane. The most vivid descriptions of the hopeless dreads and starvation of the Cultural Revolution period play off warm friendships and delightful banter about Buddhism and poetry. My favorite adventure story of the year. The understated, heartfelt, and mindful monk giggles and shines as he copes with the memories of terror and the frailties of this life. —PW

“The city was dangerous. Jeering mobs eager to prove their revolutionary integrity hunted “reactionaries,” turning on anyone they thought suspect. Beggars roamed the streets and emaciated children groveled under crudely painted portraits of Mao. In the local hospital, people were eating human placentas, and protein-rich placenta powder was available in secret shops for a price.

Tsung Tsai left the city by the west gate, traveling back roads into Sichuan State.

“At ten thirty he was practically jaunty. “Pill works. We go.”
“Special doctor,” I said, slapping myself on the chest. “Me!”
“I’ve been sick three times. Georgie, you never. You stronger than me.”
“True? Stronger than you?”
“True.”
“Great. Wonderful,” I teased. “I will write what you say. ‘Georgie is stronger than me.’”
“No, don’t do that.” He laughed. “Maybe not real true.”



Bones of the Master
Journey to Secret Mongolia
George Crane
2000; 295 pp.
\$14.95
Bantam

"ORGANIC"

IS IT HEALTHIER?

BY SUSUN WEED

Soybeans pollute, tofu causes dementia,
capsuled herbs are poisonous...

Breathe.

As you breathe, open yourselves and let oxygen in, and then breathe out that terrible poisonous gas called carbon dioxide. I want you to pollute this room. Because what's going to happen to that terrible pollutant, carbon dioxide, which would kill us if we were in a sealed room?

Follow that in your imagination, follow that out breath. You might want to color it, so that you can see it more easily. You can sense it being wafted around the room, and then you can feel a pull on that breath, and as you follow that pull, you will find that that carbon dioxide is being pulled in by the plants.

The plants are going, "Yes, carbon dioxide, give it to me, I need it." They're taking in carbon dioxide, and they're cleaving off oxygen. First they make CO, and there's this oxygen which now is a terrible poisonous gas to the plant, and the plant is going to exhale this pollutant. And you are going to breathe it in. Because in nature, nothing is anything but food. I want us to feel this truth in our own bodies.

I want us to know that every breath we take is a giveaway dance with the plants. We give away to the plants, and the plants give away to us. But we don't give away that which we need, we give away that which we don't need. We give away that which would be harmful to us, and the plants do the same.

As we breathe, we can think, where do those atoms of carbon and oxygen come from? We can begin to recognize that the very atoms of carbon and oxygen—that we're breathing in and breathing out and exchanging between ourselves and the plants—circle the whole planet. The atoms that you are breathing in were breathed by someone in Afghanistan yesterday.

What you are breathing in right now, the dinosaurs breathed in. What you are taking into your body, the oldest forms of life on this planet created for us so that we can breathe right now. By the simple act of breathing, you can connect yourself across the entire timeline of life, and through the entire planet, just with your breath.

The reason that we can be alive, the reason that I can stand up here and talk is because every one of my cells contains plants, called mitochondria. When my Dad's sperm and my Mom's egg got together, they mixed up their genetic material, and so I got a little from that side of the family, and a little from the other side of the family. But I have only my mother's mitochondria, because mitochondria are passed only from mother to child.

The mitochondria, the plants in your cells, produce the energy for you to be alive. A gift from your mother, from your mother's mother, from Eve, shall we say?

The Wise Woman Tradition

In the Wise Woman Tradition we have the six steps of healing. Step Zero: do nothing. Step One: collect information. Step Two: engage the energy. Step Three: nourish and tonify. Step Four: stimulate and sedate. Step Five: use drugs. Step Six: break and enter. So you're at a very high Step Four when you're using poke. What about Zero? What about One? What about Two? What about Three? Do you have swollen glands? Go to sleep. Sleep for ten hours, then think about Step One.

The impulse in our culture is to jump in at Step Four, isn't it? Stimulate and sedate. The impulse in the larger culture is to jump in at Step Five. Use drugs. The difficulty here is that Steps Zero, One, Two and Three build health. So long as you are doing nothing, collecting information, engaging the energy, nourishing and tonifying, you are going to build health. You could get rid of some problems too, but you are definitely building health. Once you get into Step Four, stimulate and sedate, you are destroying health. Now use a mild stimulant or a sedative like chamomile or peppermint, you destroy very little and you can rebuild that very easily. You use a stronger stimulant or sedative like coffee or valerian, you're destroying quite a bit of health and it's very difficult to get back to good health.

Mainstream Herbal Medicine

As herbal medicine becomes mainstreamed, it becomes, guess what? Mainstreamed. It becomes just like what we already had. It becomes a corporate product produced for money. Not for your health. As a matter of fact, the most dangerous way to take a dried herb—the most dangerous and the least effective—is to powder it and put it in a capsule. Believe me, your ancestors did not dry herbs and put them in capsules. When we eat something, the actual molecules of the food we are eating go through the soft pallet, and there's lymphatic tissue that overlies that soft pallet which sweeps these molecules of food down to the liver and pancreas, which then get

out their chemistry sets and start making the enzymes that are needed to break apart the components.

Herbs, of course, have huge numbers of components, or constituents. A really simple herb might have 800 constituents, a really complex one like chocolate might have 3,000 constituents, which is why we're so bad at making fake chocolate. There are too many subtleties there in that plant for us to really get it right in the laboratory.

When we take a drug, which, let's face it, is a poison, we usually have problems with digestion. Because if the drug is digested, then it doesn't work. Digestion means it's broken down. We want the drug to go into the bloodstream intact. So a lot of times we'll simply inject the drug into someone, and if not, what we're going to do is put it in a pill and coat it, or put it in a capsule, so that it hopefully bypasses stomach acid and drops right down to the small intestine and opens up and is absorbed into the blood.

Well, unfortunately, that's what happens with an herb in a capsule too. It's not worked on by the acid of the stomach; no enzymes are prepared by the pancreas or the liver. In order to digest it, the capsule breaks open in the small intestine, and the constituents are now free to go directly into the bloodstream, and the body in its wisdom of protecting us, looks first for any poisons.

Plants don't especially want to be eaten, so they have prepared a variety of ways, including some pretty bad poisons, in order to keep from being eaten. But our bodies, in response to this, have learned how to find those poisons and get rid of them. When we take an herb in a capsule, that allows those poisons to actually harm us because they're not in a form that we can easily get rid of or easily use.

Case in point—an herb called ephedra, also known as Mormon tea. We have written information on the use of this herb from China for over 3,000 years. We have a tremendous amount, over a century of use, in Utah, and both from Utah and in China, no problem

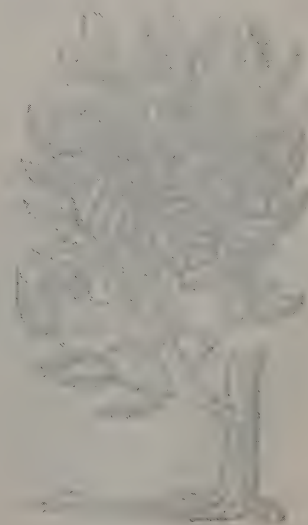
The vast majority of what you are now buying as organic is not healthier for you, and is not healthier for the planet.

whatsoever with anyone using ephedra. How come twelve people died in the United States last year from taking ephedra? Capsules.

Capsules feed into the corporate structure, they make you feel powerless, and they're dangerous for you. The same thing has happened to tinctures.

In order to make a standardized tincture, they take a plant, dry the plant, run solvents through it to take out the active constituents. They then tincture the plant material. Yes, there's solvent residue, but we don't have to worry about that, they say. *I'm* worrying. And then from the entire group of—shall we say it?—poisons, they choose one that is the supposed active ingredient and put it back in at a standardized amount.

But when we make a wine of those flowers, or when we make our own homemade tincture from those flowers, we get hyperfloren, hyperison, pseudo-



hyparison, and hundreds of other alkaloids which we know are active in the plant. This is how we really get wholeness, isn't it? What we're looking for from the plant is wholeness, not a drug with a green coat on.

We need to understand what is being co-opted here. As individuals, we can step back from this because if nobody bought standardized tinctures, what would happen? There wouldn't be standardized tinctures. And if nobody bought capsules, there wouldn't be capsules. We have far more power than most of us ever allow ourselves to really be aware of.

I bet a lot of you are afraid to pick plants from the street too, aren't you? I know you are, all right, because you've talked to me and you've said, "Well, I couldn't possibly eat any dandelions where I live because of the street and the cars and the..." I said, "But wait a second, what do plants breathe?" Carbon dioxide. What is the primary exhaust-pipe pollutant that we're worried about? Carbon monoxide. What is the first thing a plant does to carbon dioxide? Turns it into carbon monoxide. Do you see how green and healthy they are beside the road? That's because it's good for them. It's not good for you, but they're on the other side of this giveaway dance.

The plant breathes in that carbon monoxide and says, "Oh, thank goodness." Actually the level of oxygen in the air is way too high for most plants. The plants are actually exhaling so much oxygen that it's damping down their growth rate and their ability to be alive, and that is why so many plants go to the road and grow there, because there's less oxygen there. And it's better for them.

These are difficult things to get over. I really understand that you have a lot of fear in you that was put there by well-meaning parents who said, "Don't go outside and pick any of the plants, you could die." They wanted to protect you; they were afraid too. And they figured the very best way to keep you safe was to terrify you. But the fact of the matter is that plants that are poisonous taste vile. And only an adult would eat a poisonous

plant. Children are too smart to eat poisonous plants.

We took some stinging nettle infusion last year, and we took it to a lab and said, "Could you analyze this for vitamin and mineral content?" Now we used one ounce of dried stinging nettle in a quart of water. That one ounce of dried stinging nettle by weight is the equivalent of about a quarter pound of fresh stinging nettle, and you can easily drink a quart of stinging nettle infusion in a day. It doesn't sting you. It tastes

What we're looking for from the plant is wholeness, not a drug with a green coat on.

kind of like spinach broth. Fantastic over ice. Wonderful with a little milk added to it, lovely warmed up. Our quart of stinging nettle infusion contained more than 2,000 milligrams of calcium. It's 500 milligrams a cup, zero calories. I don't want to hear any excuses from anybody in this room for buying a calcium supplement.

Organic v. Biodynamic

There's a really incredible book written by a friend of mine, Paul Bergner, called *The Healing Power of Minerals*. With a little behind-the-scenes help, he got into the files of the US Department of Agriculture. For instance, in 1917, a 100-gram serving of iceberg lettuce contained over 300 milligrams of calcium. Do you think of iceberg lettuce as a calcium source? No, you're right. Because by 1972, that same 100 grams of iceberg lettuce had less than 75 milligrams of calcium, and as of the last time it was tested, it had something on the order of 6 milligrams of calcium per 100 grams of iceberg lettuce, which leaves it about where you think of it, which is "Forget it, I'm not going to get anything from it."

What causes the minerals to disappear? The soil is not alive. No matter how poor your soil is, it can be alive.

Things grow in the desert. And there are mineral-rich things. So it doesn't have to do with being fertile or rich soil, it has to do with soil being alive, which is what the organic gardener, the organic farmer is supposed to be focusing on, right? But when we test organic produce, it does not have more minerals than non-organic produce.

One thing that kills those microorganisms is synthetic fertilizer, which is like an antibiotic to the soil. It does the same thing that antibiotics do to you. It kills microorganisms as a kind of second-hand effect. But I think more to the point, especially when we're looking at organic, soil compaction kills microorganisms, and anybody running a tractor has compacted their soil.

Are there vehicles that have lead in the gasoline? Yes, diesel tractors. You are more likely to get lead in your organic produce than from anything beside the road. Because when a farmer goes home for lunch, what does he or she do to the tractor? Leaves it on.

So when you buy that nice head of organic broccoli, do you know that wasn't the one right under the exhaust for an hour and a half? You don't. And you have no way of knowing.

What I am trying to alert you to is the vast majority of what you are now buying as organic is not healthier for you, and is not healthier for the planet.

And of course, biodynamic gardening puts this in very sharp relief, where we take things and we actually bury them, and brew them, and we understand that animals are an integrated part of the biosphere, and that we can't pretend that we're going to garden without them.

Love animals, eat them. People say, "Are you a vegetarian?" and I say, "You bet. I eat anything that eats vegetables." I could not live on my homestead if I did not eat my rabbits and goats. I live on an old quarry. When I went to the extension and said, "I'm looking to buy this piece of property," they pulled out the soil maps and they said, "Ah, there's no soil on your property, did you realize that?" I said, "Yeah, it's an old quarry." They said, "This place is useless. The only

thing that you could possibly do there is raise goats or grow weeds. So I went to the people selling it, and I said, "It's a worthless piece of property, it will only grow weeds." I got it for a very good price.

And we grow a lot of weeds, let me tell you. The grasses are not edible by human beings. So we cut those and feed them to the rabbits, and the rabbits then feed us the grasses in a form we can utilize. There are many shrubby things that I can't eat but the goats love to eat. They take all that thorny scrubby stuff and they turn it into milk for me. And those little boy baby goats, we get to eat them. Yes, it's a sexist world on a farm, isn't it? Girl things get to live, boy things....

Soybeans Pollute

What is the biggest polluter of our waterways in the United States today? Soybeans! Soybeans are the biggest polluter—not the chemicals that are put on them, the soybeans themselves—because they are loaded with nitrogen, and they are not turned back into the soil. After the beans are harvested the plants are left on the soil and the nitrogen runs off into the water and causes eutrofication.

In the Orient, 97 percent of the soy that's eaten is in the miso and tamari. Fermented soy products. Is that how you're doing it in your diet? Take a look. I just got an email from Michael Moore. It said, "Soy did me in." He spent three weeks eating a diet incredibly high in manufactured soy products—soy protein isolates, bars with isoflavone, soy beverages. Within three weeks he wound up in the hospital in the cardiac care unit because the action of his thyroid had been so depressed that his heart could no longer maintain a regular beat.

A study just published showed a straight-line relationship in Japan in men over 80 between tofu consumption and dementia. The more tofu consumed during the man's life, the more and more severe the dementia. Japanese people, let's face it, are not vegetarian. And when they eat tofu, they eat it with meat. And seaweed. Because the sea-

weed offsets the effect of the tofu on the thyroid, and the meat offsets the effect of the tofu, which takes away minerals from major areas of the body.

The Organic Pyramid

Let me give you the organic pyramid. The primary chemicals that we are concerned with in terms of our health are a class of chemicals called "organochlorines." These are oil-based chemicals. There are also organophosphates, which are water-based chemicals. The organophosphates are passed out of our bodies very, very easily because they're water-based, and we're water-based. But the oil-based chemicals, the organochlorines, stay in our body. They're too complicated for the liver to pull apart, which is what the liver is supposed to do, so the liver sends them to the kidneys and says, "Would you piss this out, please?" And the kidneys say, "These molecules are too big to fit through my filter here, and I can't piss them out. Back to you, liver." And liver says, "Darn these things, they're really disruptive. Put them in prison." Prison turns out to be your fat cells. So whenever you take in organochlorines,—and believe me, every sip of water, every bite of food, and every breath of air that all of use consume contains some organochlorines—those are stored in our fat cells. And they can be excreted in a very limited number of ways.

Women living above the Arctic Circle are asked not to breastfeed because these chemicals can come out in breast milk, in any kind of milk. And the level of DDT in the breast milk of these women is so high, that it could actually cause a lot of neurological damage to their children, because those chemicals have concentrated up the food chain. The women are eating whale fat, where the chemicals are incredibly concentrated and then concentrated into their breast tissue, and released into their milk. Every time a woman ovulates, or a chicken lays an egg, organochlorines are in that egg. Any time a man ejaculates, organochlorines are in that ejaculate. If you've

been looking for a reason not to swallow, just tell them, "I'm organic, I can't swallow that stuff."

In just a rough estimate, you would have to eat nonorganic produce for ten years to get the amount of chemicals that you will get in one pound of nonorganic butter. So your pyramid is, the first place you're going to spend your money on organic is butter, milk, eggs, cheese, then anything that has fat—nuts, nut butters—then grains and beans which also have a germ which is fatty. The amount of chemicals in your fruits and vegetables is so low compared to what's concentrated further up. If you have all the money in the world, buy everything organic. If you don't, fruits and vegetables come last. Does that help you? **WE**

Susun Weed is one of the most prominent American herbalists today. She is also a biodynamic farmer and an assumption breaker, as this excerpt from her talk at the 2001 Bioneers Conference demonstrates. Her critique of modern "organic" food focuses on an examination of how to employ farming techniques that respect the Earth's integrative systems, as well as our bodies' nutritional needs beyond the simple RDA recommendations. Susun divides her time between directing her Wise Woman Center in Woodstock, NY; writing; teaching; and lecturing on the Wise Woman Tradition.

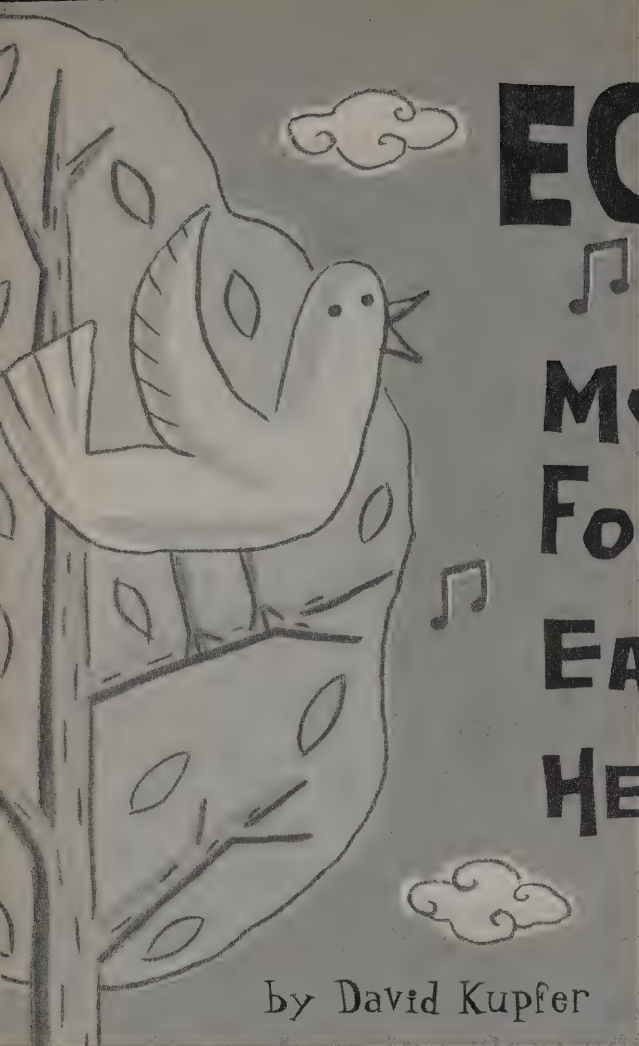
WISE WOMAN CENTER

PO Box 64, Woodstock, NY, 12498

www.susunweed.com

For access to Susun's many books, see page 10.





ECOFOLK

MUSIC FOR EARTH HEALERS

by David Kupfer

ILLUSTRATIONS BY THORINA ROSE

If you are a songwriter/poet/artist in this time and you are not writing about the changes you see, feel, and live in . . . what the hell are you writing about? —Bear Dyken

I first became familiar with “ecofolk” music (my term) through befriending and traveling with a California-based group called the Clan Dyken. I heard them and other artists at protests against the Nevada Test Site and the Livermore Nuclear Lab, at Big Mountain benefits, at rallies against nuclear power and clear-cutting and for organic farming in rural California, against road building in Britain, for solar and against geothermal power in Hawai‘i.

As I repeatedly heard the same groups, with similar messages, I sensed that I was witnessing the evo-

lution of a new genre, which I’ve called ecofolk.

Movements create the music as much as music stokes the fire of cultural resistance. Protests, rallies, and actions without music and art are boring. It’s disempowering to come to a boring protest. But musicians can help people make salient, memorable points, transform society—and have fun at the same time.

Ecofolk, the resurgence of folk music with a green message, is usually colorful, often spiritual, sometimes quite touching, and at other times wonderfully witty. Its roots can be found in the music of Woody Guthrie, Pete Seeger, Malvina Reynolds, Country Joe McDonald, Buffy Sainte-Marie, Phil Ochs, Kate Wolf, Jackson Browne, Bruce Cockburn, and Tom Lehrer. The No Nukes Festival album and film (1977) were early ecofolk, but quite mainstream.

I see three threads in this emerging genre. The first is activist, informing audiences about current issues; inspiring a new generation of activists; and fostering community.

The second thread comprises songs reflecting the beauty, power, impact, and stature of wildness and wilderness, the geography of our home. The third thread is educational ecofolk for kids. All three have passion and pleas for environmental justice.

I tried out the “ecofolk” label on a few of the people I regard as its practitioners. Robert Hoyt, for one, does not consider himself an environmental musician. “I am a performer/songwriter who writes what he feels and if that sometimes includes ‘environmental’ themes, so be it. I am not an activist who also performs music but rather a musician who also happens to be an activist.”

On the other hand, it works for activist/musician Darryl Cherney, who calls it “the sugar coating on the truth pill.” Ecofolk, he says, “musically archives the deeds of activists and the pressing environmental issues of the day in a medium that is pleasing to the ear and easier to digest than, say, screaming slogans at someone.”

This is music from the vernacular of community, rallies, and demonstrations. You can hear it at small clubs and regional festivals. So far, these are fringe artists. Mainstream media has not discovered any of them. Their CDs are often available only by mail order or from websites.

Here’s a brief introduction to some of my favorite ecofolk musicians (the list doesn’t claim to be definitive). Perhaps one of them will emerge as this generation’s Pete Seeger.

The Banana Slug String Bandwww.bananaslugstringband.com

A renowned, comical group of musicians and environmental educators from the coastal redwoods of Northern California. Using voices, guitars, mandolin, bass, harmonica, banjo and percussion, their children's songs range from rockin' boogies to sensitive ballads, from folk songs to reggae and rap.

Allette Brookswww.allettebrooks.com

She's a classically trained vocalist singing acoustic folk. Her third album, *Swim With Me*, just released, is straight-up social commentary combined with a biting sarcastic sense of humor; spunky and thoughtful.

Carter & Connelleywww.carterandconnelley.com

Between them, Curt Carter and Tom Connelly sing original lyrics and play acoustic guitar, mandolin, fiddle, banjo, harmonica, and flute. The latest from Illinois' preeminent folk warriors, *Songs from the Seventh Direction*, combines upbeat acoustic music and harmonies with lyrical messages asking us not to take our Earth for granted and to consider what is really important in life.

Darryl Cherneywww.darrylcherney.com

A legendary Earth First! organizer and musician, he's a campfire favorite who has been in the thick of the old-growth preservation struggle on the North Coast of California. Along with fiddler Judi Bari, Darryl was car bombed. He maintains a wicked sense of humor and can create a campaign song faster than most tree-huggers. His lyrics, songbook, and music are online.

Clan Dykenwww.clandyken.com

Clan Dyken have refined their tribal-funk-eco-folk-rock for eighteen years. As with most of these artists, no recording compares to a live concert, but the Dykens' recent efforts capture their penetrating passion and catalyzing messages. Check out *Bushleague Hits*, *Revive the Beauty Way*, and *Green Prayer*.

The Depaverswww.culturechange.org

Led by noted neoLuddite and antiroad crusader Jan Lundberg, they're more eco-rock, but wholly original. Listen to "Have a Global Wholly Day" on their web page.

Alice Di Micelewww.alicedimicele.com

Alice Di Micele is one of the finest woman singer/songwriters in the Pacific Northwest. She calls her brand of music groove-folk, or acoustic-soul. "My job as a musician is to communicate emotion and to stir the place inside the human spirit that feels connected to all other souls."

Flying Folk Armyflyingfolk.ca

Upbeat and irreverent, Flying Folk Army makes radical folk music for people with short attention spans. From Celtic numbers to acoustic renditions of disco standards, this Vancouver B.C.-based group is made up of musicians who are part-time comedians, activists, and troublemakers. They've even produced a dance tune about genetically modified foods, perfect for hoedowns.

Joules Graveswww.joulesgraves.com

An energetic, passionate ecofeminist folksinger who has been helping audiences across the US to sing Earth chants and dance together for over ten years. A self-taught musician, her most recent self-released CD is *People of the Earth Tribe*.

Robert Hoytwww.roberthoyt.com

As one of the leading ecofolkies in the nation (despite his disinclination to use the title), Robert Hoyt has spent much of the past ten years touring the nation on the college circuit and beyond. Sophisticated, funny songwriting delivered with a variety of sophisticated guitar styles. Listen to his music on his web page.

Greg Keelerwww.troutball.com

Greg comes off as a goofy yet intelligent country-western parodist whose songs poke fun at everything worth poking fun at. Besides being a poet and musician, Keeler is a professor of literature in Montana and an avid fisherman. You can download most of his work through his web page.

Dana Lyonswww.cowswithguns.com

Otherwise known as the Godfather of Grange, Dana is a wickedly funny lyricist and a fine singer. His title song from *Cows With Guns* has been on the country charts in Australia and a #1 hit for Dr. Demento.

Magpiewww.magpiemusic.com

Their folk spirit and music comes out of the 1960s; Greg Artzner and Terry Leonino have performed together for twenty-nine years. They harmonize with fresh soulful sounds and topical material that comes as close to the sound of the Weavers as anything to be found this millennium. *Living Planet* is their most eco-oriented release.

Jay Mankitawww.jaymankita.com

A consummate folk artist who performs in a whimsical, versatile style for both children and adults; a good portion of his work is environmentally or peace-and-justice based.

Peg Milletwww.juggling.org/~conway/millett/

A longtime Earth First! activist who was framed and convicted of monkey wrenching, Peg has one of the most beautiful voices I've ever heard. Her two albums are *Clear Horizon* and *Gentle Warrior*.

Casey Neillwww.summershow.com/casey/

Though he's been on the grassroot folk scene for a decade, he considers himself more of a punk rock musician who plays traditional Irish music and writes pop songs on an acoustic guitar. His distinctive twangy voice and sometimes moody lyrics graphically portray unique images and insights.

Jim Pagewww.jimpage.net

Jim Page is a humorous and moving poet-musician who combines the topical quality of Phil Ochs with the passion of Leonard Cohen and the prose of Dylan. He has a lyrical style similar to Arlo Guthrie's. A folk lifer, he has been a street musician in Seattle for more than thirty years.

Libby Roderickwww.alaska.net/~libbyr

An acclaimed singer/songwriter, poet, activist, teacher, and lifelong Alaskan. Libby sings with great compassion, poetry, and love for the planet.

David Rovicswww.davidrovics.com

A political activist singer-songwriter who has been on the front lines of recent environmental and anti-globalization actions. He is a bluegrass picking troublemaker who, like many ecofolk artists, performs at demonstrations and on campuses across the country.

Peter Siegelwww.petesiegel.com

He knows how to incite and delight through words and music, evoking the politics and humor of Mojo Nixon, Jello Biafra and Tom Lehrer. A thoughtful artist who blows open and validates the consciousness of his audiences.

Stan Slaughterwww.stanslaughter.com

Most of Stan Slaughter's music is focused on education around recycling, composting, and hazardous waste. "My tour is funded by solid waste grants in the Midwest. There are not enough green-type folks to come out for an eco-concert there, but there are plenty of schools." He has taken his message to more than 1,200 schools and 440,000 children.

Walkin' Jim Stoltzwww.walkinjim.com

He has trekked more than 25,000 miles across America. His six albums contain many poetic songs about the wild places on Earth.

Anke Summerhillwww.ankesummerhill.com

Much of Anke Summerhill's music touches on themes of nature, eliciting some haunting, memorable melodies.

Elisa M. Welchwww.art.net/elisa/

Elisa M. Welch calls herself "a countercultural ethnomusician who specializes in Left Coast Neo-Celtic Folk." In addition to playing many instruments, she has a soothing voice.



LYRICS



Chinook Blues

by Alice Di Miele

*I'm a wild chinook salmon, ain't no hatchery child
and when you dam up my river you cramp my style*

*When you clear-cut the forests it's like pouring dirt
into the middle of my home*

*When you muddy up my bedroom, I ain't got any-
where to spawn!*

Roundup Ready Roundup

by Alison Jenkins and Jonathan Teague

*Roundup Ready
Dig that terminator seed
Farmer Freddy
Screwed by corporate greed*

*Third World countries,
You'll be fine
Sign here on the dotted line
Soon your nations will be mine
It's the Roundup Ready roundup*



Salvation

by Elisa M. Welch

*In the name of the Father
They pave the path that Mother sets aside
They're in for a very bumpy ride
They're chasing each other
On down the road to global suicide...
They teach us to hate our bodies in order to
save our souls*

*They poison Mother's garden
And sell real estate for some off-planet deity
Some guy who looks like Santa Claus
Is that what you've been sold?*



You Can't Clear-cut Your Way to Heaven

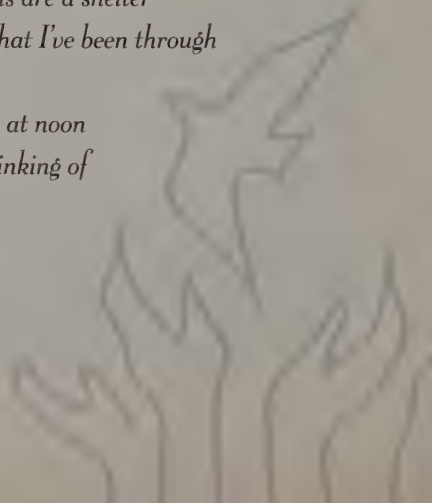
by Darryl Cherney

*Now my momma used to read the family Bible
And she said thou shall not covet, steal or kill
But then I coveted the forests and the mountains
And I stole my mother nature's gems at will
And I killed off many creatures to extinction
But I'm sure God must have made them by mistake
'cause I had to keep my job
Where I plunder, rape and rob
But I swear to you it's for my children's sake
But you can't clear-cut your way to heaven
No, strip mines don't make it with the Lord
Bulldozing the creation
Won't win God's admiration
And the pearly gates may close for evermore.*

Stars at Noon

by Anke Summerhill

*Quiet beauty surrounds you
So does the wind the whole year, too
Your red rock canyons are a shelter
From many storms that I've been through
Canyons so deep
You can see the stars at noon
It's a paradise I'm thinking of*



AN ECOFOLK SAMPLER

White Tribal Music

Darryl Cherney

CD \$15 donation, tape \$10 donation to
ESP Records (a nonprofit),
PO Box 2254,
Redway, CA 95560, 707/923-4949

Alice Live

Alice Di Micele

1998. \$17 postpaid
Alice Otter Music, PO Box 1109
Ashland, OR 97520
www.alicedimicele.com

Have a Global Warming Day

The Depavers

2000; \$12 from The Depavers Album
c/o Sustainable Energy Institute
PO Box 4347, Arcata, CA 95518

Dumpster Diving Across America

Robert Hoyt

1998; \$17 postpaid. Folk the Boat,
PO Box 2355, Decatur, GA 30031-2355

Clear Horizon

Peg Millett

CD \$17, tape \$12 postpaid
Hidden Waters Music, PO Box 2544,
Prescott, AZ 86302, 520/776 5953

Move the Mob

Peter Siegel

2000; \$17 postpaid. Andy's Front Hall,
800/759-1775, www.petesiegel.com,
cdbaby.com

the World

David Rovics

1998; \$17 postpaid
PO Box 995, Jamaica Plain, MA 02130

The Vision

Walkin' Jim Stoltz

2000 (reissue); \$16.50 postpaid
Wild Wind Records, PO Box 160477,
Big Sky, MT 59716, www.walkinjim.com

The Eco-Troubadour

Stan Slaughter

2001; \$15 (\$20.25 postpaid). Tall Oak
Productions, Pilar Route, Box 11B,
Embudo, NM 87531, 888/484-4477,
www.stanslaughter.com

The Roots Run Deep

Anke Summerhill

\$15 (\$16.50 postpaid)
Sky and Earth Music, PO Box 521533,
Salt Lake City, UT 84152-1533
888/495-6575,
www.cdbaby.com/cd/summerhill

Cows with Guns

The Cow Pie Nation Compilation

Dana Lyons

1998; \$16.70 postpaid from
www.cowswithguns.com
\$17 from Reigning Records
PO Box 2627, Bellingham, WA 98227
888/878-COWS

Eye of the Hunter

Various artists

2002; \$14. M.U.S.E., PO Box 671,
South Lyon, MI 48178
www.musemusic.org

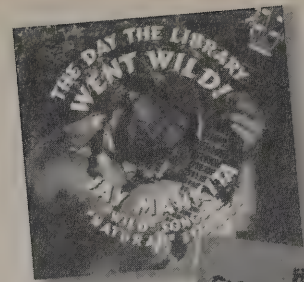
A joint release between Musicians United to
Sustain the Environment (M.U.S.E.) and Predator
Conservation. A collection of memorable songs cele-
brating wolves, bears, coyotes, and other predators,
featuring Paul Winter, Kate Bennett (with Kenny
Loggins), Casey Neill, Susan Grace, Magpie, Country
Joe McDonald, Katherine Archer, Dakota Sid, Walkin'
Jim Stoltz and others.

If a Tree Falls

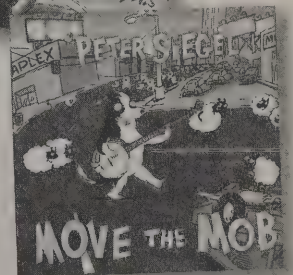
Various artists

1996; \$3 (while they last). Earthbeat! Records,
PO Box 1460, Redway, CA 95560
800/346-4445,
www.earthbeatrecords.com

A collection of moving songs—at an incredible
price—about old growth forests, defending the Earth,
and the travesty of clear-cutting. With songs by
Robert Hoyt, Buffy Sainte-Marie, Hank Williams Jr.,
Dan Fogelberg, Bruce Cockburn, Alice Di Micele, and
others.



COMPILATIONS



MEASURING THE POWER OF PRAYER

BY LARRY DOSSEY, M.D.

Research Suggests Consciousness Can Change the Physical World

When any new idea crops up in science, it is generally possible to make out a four-step process for how people respond to this new idea.

First, in conventional medicine, the skeptics almost always say that the new therapy just has no effect. Their predictable phrase for the evidence supporting it is “junk science....There really is nothing to be discussed.” As one famous skeptic put it, “This is the sort of thing I wouldn’t believe in even if it were true.”

In the second stage, as evidence favoring the new therapy continues to emerge, the skeptics get around to conceding that, “Well, what do you know? There is an effect after all. But it’s too small to be of any clinical significance.”

In the third stage, the skeptics say, “Well, you know, there is an effect, and it’s larger than any of us previously thought.”

In the fourth stage, the skeptics say, “We thought of it first.”

This is sort of the history of alternative medicine, and I think it’s likely to be its future. One of my favorite examples about how this process works is physical exercise, including jogging and running. I’m old enough to recall that thirty years ago the experts said there wasn’t any evidence whatever that jogging benefitted anybody, and people who actually jogged were called “health nuts” by physicians.

But over the years the evidence favoring the health effects of exercise continued to come forward, and by now, this situation has gone through those four stages. Now we physicians no longer say that jogging is worthless. In fact

we say that it is actually so potent that it’s dangerous. And that you should come into the doctor’s office to have a treadmill stress test under a physician’s supervision to make sure that it’s actually safe for you to engage in this potentially lethal activity. We charge for that, by the way.

As we look to the future of integrative medicine we ought not to expect all the physicians to come onboard, no matter how strong the evidence for any particular therapy proves to be. Some physicians will simply die off totally unconvinced. And I know that there are those physicians out there who are so bitterly opposed to this field that they will probably be condemning integrative medicine with their final dying breath.

But that’s one form of change. The famous physicist Max Planck once said, “Science changes, funeral by funeral.” So a new generation of young physicians will arise, and they’ll probably look back and wonder what all this fuss was about.

In the past few years we have bumped up against a factor that I feel is embedded in every therapy that has ever been used by healers, and will be used by healers in the

future. That factor is simply consciousness. In our focus on specific therapies (acupuncture, homeopathy, herbs, nutrition, you name it), we have largely—even in the field of integrative and complementary and alternative medicine—managed pretty much to overlook the role of consciousness. When I use this term I am not talking about things like positive thinking and suggestion and expectation, what is usually called the placebo response. I am talking about something a good deal more outrageous than



For centuries, Jews have placed slips of paper bearing prayers into the cracks of the Western Wall in Jerusalem. Anyone can now send a prayer to www.virtualjerusalem.com, whose staff will print it out and place it in the Wall. (See page 21.)

that. I'm referring to the power of consciousness to bring about actual changes in the outside physical world.

A study is being conducted at Duke University Medical Center by Dr. Mitchell Krucoff, who was the head of cardiovascular labs there. It involves cardiac patients. When these people come through Duke with chest pain and are headed for cardiac cauterization and angioplasty, they're randomly assigned either to the "prayed-for" group or the "unprayed-for" group. If they're randomized to the prayed-for group, overnight these people find themselves on the receiving end of probably more prayer than they've ever had in their lives. It later comes as a shock to some of these North Carolina patients to discover who was praying for them. They discover that they had been receiving prayer from heathens, Buddhists in Nepal and Tibet who are linked to the Internet. They find that they were receiving prayer from Hindus in India. These fundamentalist conservative Christian patients find later that they were receiving prayer from Jews in Jerusalem.

All of these assignments and requests for prayer are done through the Internet. Now there's a site (www.virtualjerusalem.com) to request a free prayer from the Jerusalem group. There are dedicated Carmelite nuns outside of Baltimore who pray for these patients. There is an ecumenical group associated with the Unity Church, called Silent Unity (www.unityworldhq.org/silent_unity.htm), that prays for these people also, and there are considerable numbers of conservative fundamentalist Protestant churches in the North Carolina area who are also in on this.

The results are stunning. The people in the prayed-for group have 50 to 100 percent fewer side effects from these invasive cardiac procedures than people who did not receive the prayer. The study has been expanded to twelve other major American hospitals. The early data is soon to be published in the *American Heart Journal*. So put it on your radar screen.

Here's the most important thing, I think, at this stage of this research.

These human studies are buttressed by dozens of additional studies in nonhumans. The perennial complaint about the human studies is that there's some hidden factor in here: You just haven't quite identified it, but these people just sort of think positively and they just try to help the prayer along, so the prayer's not doing anything; it's just positive thinking when you get right down to it. But animals and bacteria and plants and germinating seeds don't think positively, as far as we know.


Many of these studies in nonhumans explore, for example, the healing rates of surgical wounds in animals...the replication rates of bacteria in test tubes...the rapidity of growth in fungi on petrie dishes...the germination rates of seeds, and the growth rate of seedlings under laboratory conditions...the specific rate of biochemical reactions in test tubes. These studies are important, because you can do them with fanatical precision. And they leapfrog almost all of the complaints that skeptics level at the human studies in the field.

So why are these nonhuman studies important? If you back off and look at this field as a whole, what you see is that the nonlocal effects of consciousness operate across an immense spectrum of nature. You see these intentionality and prayer effects from the micro or the atomic molecular level, through the middle world where bacteria live, up to the macro world inhabited by humans and plants and animals. And this linkage, this so-called concatenation or coming together of effects unifying these vastly different domains of nature, is one of the most compelling aspects in this field. This concatenation is a highly valued feature of valid science. It suggests that we're dealing with a general principle that is embedded throughout all of nature, and that these studies are indeed valid, and that we're not fooling ourselves about the phenomenon.

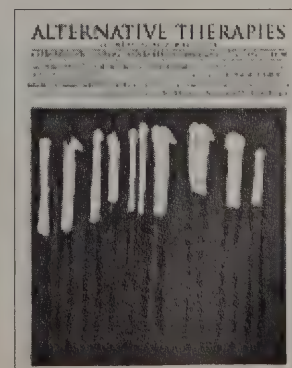
These studies involve two main processes—healing and fertility. The healing studies involve the repair of actual wounds, the healing of specific diseases, such as AIDS and coronary artery disease. The fertility studies

involve not just the fertility of humans, but the fertility of the nonhuman world as well, such as the germination rate of seeds and the growth rates of plants.

The secular scientific and the religious sides of life cannot be kept in separate boxes. This is not a new recognition. Alfred North Whitehead once said, "It is no exaggeration to say that the future course of history depends on the decisions made by this generation as to the relationship between science and religion." America's great essayist of the nineteenth century, Ralph Waldo Emerson, said, "The religion that is afraid of science dishonors God and commits suicide." Einstein said, "Science without religion is lame. Religion without science is blind."

If you look at these studies, you will see that distant healing and intercessory prayer effects in these experiments point like an arrow to religious tolerance and openness because they show clearly that no particular religion has cornered the market on these effects. These effects clearly are universal. There is no monopoly. And so these studies provide hope for our tortured Earth because they show that those old-fashioned ideas of love and empathy and compassion can literally change the state of the physical world. 

This article is adapted from Larry Dossey's remarks in a panel on "The Future of Integrative Medicine" at the 2001 Bioneers Conference. He is former chief of staff of Medical City Dallas Hospital. His books about mind/body medicine include *Space, Time & Medicine*; *Beyond Illness*; *Recovering the Soul*; *Meaning in Medicine*; and *Prayer Is Good Medicine*. He is the editor of probably the best peer-reviewed journal covering the entire field of integrative medicine, *Alternative Therapies in Health and Medicine*.



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SURVIVING CANCER

with a Lot of Help from My Friends

by Michael K. Stone

I was diagnosed with prostate cancer last September 18. The terrorist attacks a week earlier gave me all the metaphors and rhetoric I needed to describe how I felt: Aliens seeking immortality had mounted a surprise attack. I was at war, my innocence lost. Life would never be the same.

In 1978, Susan Sontag attempted to demystify cancer in *Illness as Metaphor* (see access, page 24), but metaphors she identified then—"a ruthless, secret invasion...a rousing call to fight by any means"—felt just as apt in 2001.

The Big C. We've come a long way in looking cancer in the face since the days when doctors spoke the C-word to families, but not to patients, and obituaries routinely referred only to death "after a long illness." Still, the fear, confusion, and depression that I was feeling came from a deeper place than any particulars of the diagnosis alone.

Even the urologist's confident "It's eminently treatable" was less than wholly reassuring. From what I knew about prostate cancer treatments, the possible side effects of the cure sounded nearly as bad as the disease. Assuming I lived, I could be left impotent or incontinent—hurled back to childhood, bereft of a primary marker of manhood or sentenced to wear diapers for the rest of my life. It wasn't just me. Euphemisms continue to thinly conceal our culture's squeamishness about bodily functions and their loss. I couldn't locate the shelf for incontinence pads in my neighborhood Long's Drugstore, until I found an aisle labeled "personal products," as if aspirin or bandages or shaving cream aren't personal products.

MYSTIFICATIONS

Understanding prostate cancer ("PCa" to we who are its intimates) is clouded by two contrary mystifications:

1. "Cancer is a death sentence."

No. Being born is a death sentence. Cancer is a disease. If caught early enough, it can often be treated, and cured or contained.

2. "Prostate cancer is an old man's disease. Men 'die with' rather than 'die of' it."

About 31,000 men will likely die of it this year in the US, many of their deaths horrible, especially when the cancer has metastasized into their bones.

Patrick Walsh and Janet Worthington (see access) summarize the prostate paradox: "The prostate... does much more harm than good, located in a terrible area that complicates any attempt to treat it" (see diagram next page). It doesn't seem necessary for either life or reproduction (researchers disagree about its exact function) but it attracts a disproportionate share of problems. Unlike nearly every other body part, it keeps growing throughout life. It is the bane of older men, squeezing the urethra (which passes through it), and provoking famously urgent and sometimes frequent bathroom dashes.

Prostate cancer usually—but not always—grows slowly. It is best treated if still prostate-contained, but it usually manifests no symptoms until it's spread beyond the prostate. Fortunately, medicine has developed early screening tools. In a digital rectal examination (DRE), the doctor inserts a finger into the rectum (often after an embarrassed apology) and feels for enlargements or other abnormalities.

Only some tumors can be felt. About 1990, doctors added a PSA (prostate-specific antigen) test. PSA, measurable through a blood test, is

produced only by prostate cells. Cancerous cells produce more than normal cells. PSA level can be a red flag long before other symptoms develop.¹

Based on my PSA; the type of cancer found in my biopsy; and my age, health, and best-guess life expectancy, I was a candidate for virtually every major treatment: surgery, external beam radiation, proton beams, brachytherapy (implanting radioactive "seeds"), freezing the prostate, hormones, "watchful waiting" (monitoring but doing nothing else). No treatment is unequivocally regarded as "best." Each has advantages and definite side effects and disadvantages.

SELF-EDUCATION

I began to seek every source of information and support. I'm grateful for all of them. But each can also provide biased, incomplete, or misleading information. Here's my experience:

- **MDs.** Choosing the practitioner may be more important than choosing the treatment. I want my only body worked on by someone who's competent, experienced, up-to-date, well-practiced. The best books and websites (see access) offer good guidelines and questions to ask when choosing a doctor, but they can't make the choice for a person.

Caveats: Urologists are trained as

¹ The screening tests are simple, and virtually painless. But not uncontroversial. They can produce false positives, leading to "unnecessary" biopsies. Even if detected by biopsy, a cancer could be slow-growing; many men *do* die with, but not of, prostate cancer. Some of us may be suffering anxiety or enduring treatments we don't really need. Therefore, argue some doctors, the net disadvantages of widespread screening may outweigh the benefits.

It's an argument I can understand, but not accept. (Try it out on the families of the thousands of men who will die this year of cancer that might have been treated if discovered earlier.) Give me the best information I can get, and let me decide what to do with it. I continue to believe that one of the best gifts you can give yourself or a man you love is a yearly DRE and a PSA test. That goes for all men over 50 (some would say even younger) and for African-American men over 40.

surgeons, and usually recommend surgery if it looks viable. Radiologists tend to favor radiology. Etc. Getting additional opinions is crucial. Doctors sometimes understate problems (“this may hurt a little”). Nurses are often better sources of information about how much it will hurt, how long it will take, what to expect.

• **My partner.** Along with all the other support she gave me, including camping out on the hospital room floor after my surgery, my wife Pat became part of my decision process. We attended medical consultations together, compared notes, and weighed options. She’s the person who knows me best, and sees through me best. Fairly early, we began to talk about “our prostate.” And she was going to live with the consequences of my decision, which could be short- or long-term impotence, loss of libido, depression, even the small—but real—chance I could die during treatment.

There’s another good reason to include partners; they often have as much difficulty dealing with PCa as do patients. In a recent Memorial Sloan-Kettering study more wives than patients displayed a host of stress indicators, including fatigue, worry, depression, loneliness, and trouble



Mike with loving partner Pat.

sleeping (the studies I’ve read about all focus on wives; I haven’t seen any that address unmarried male or female partners).

• **PCa survivors.** Some of my very best sources of information were PCa survivors, who were generous enough to talk frankly, knew what I was feeling, and knew the answers to questions they wished they had asked.

Sharing the news of my cancer was not easy for me. But time after time, someone replied, “Oh, I’m a survivor,” or “I know someone you can talk to.” I talked with friends and friends of friends who had chosen every major therapeutic option.

I also found a PCa support group that meets weekly at our local hospital. The group includes veterans of just about every procedure—some with better results than others. Some mem-

bers have made a near vocation out of tracking new PCa research. All are forthright, openly sharing intimate details and feelings.

Survivors caveat: Some people get defensive about the procedure or practitioner they chose. Others are just angry. Support groups can be skewed toward people experiencing problems (men often stop attending if they aren’t having complications). I learned to talk to as

many people as I could, and to take no one’s experience as “typical.”

• **Internet self-help groups.** Tom Ferguson (“Online Health,” *Whole Earth*, Winter 2001) was right. Web-based groups can be an excellent way to contact a large circle of highly motivated fellow inquirers, pick up strategies, learn about new research, or post specific questions.

Same caveats as above, without the chance to read expressions and body language.

• **Reading.** The material available in books, articles, and the Internet can be overwhelming, and it keeps growing. My best tips on what to read have come from survivors.

Caveat I: The field keeps changing. Anything (especially a book) more than about five years old is likely to be out of date.

PROSTATE CANCER FACTS

About 190,000 men in the US will be diagnosed with prostate cancer this year. 31,000 are expected to die of it.

One in six American men can expect to be diagnosed with prostate cancer during their lifetimes.

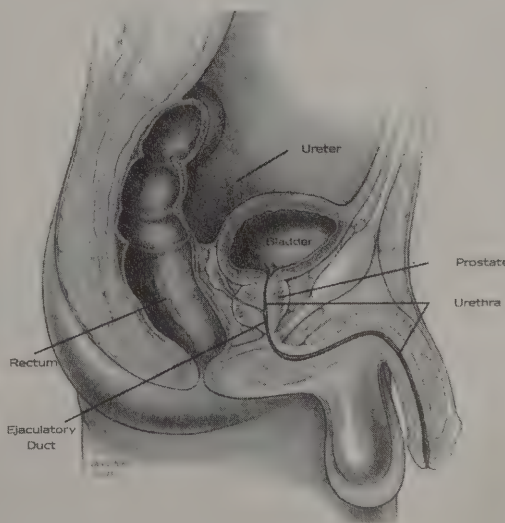
Asians have the lowest prostate cancer rates in the world, but their risk increases dramatically when they move to Western cultures.

African Americans have the world’s highest prostate cancer rate. The percentage of African-American men who develop prostate cancer is 40 percent higher than that of white Americans. Black Americans die from PCa at double the rate of whites.

The risk of prostate cancer is twice as high when one close relative has it; five times as high when two close relatives do.

In one study of autopsy results, 30 percent of men over 50 and 80 percent of men over 80 had cancer in their prostates, though many were never aware of it.

Research continues on diet and lifestyle factors that might encourage or prevent PCa. High-fat (especially animal fat) diets seem bad. Selenium and Vitamin E, and perhaps soy, appear to help, but nothing is definitive.



The prostate is surrounded by the rectum, the bladder, the sphincters that control urine flow, major blood vessels, and many bundles of nerves, including those that control erection. Any of these is easily damaged, and any procedure to treat prostate cancer risks side effects, including incontinence, rectal bleeding, and impotence.


From Dr. Patrick Walsh’s *Guide to Surviving Prostate Cancer* (see access).

Caveat II: It may be that people with more dramatic problems are more likely to want to write them up. In any event, everyone's experience is different. Virtually every account I read contained at least one bad experience that I didn't have. On the other hand, if I ever write up my surgery and recuperation, I'll be able to tell some scary stories I haven't heard from anyone else.

Pat and I eventually chose surgery. Part of our decision was rational: If the cancer was contained within the prostate, surgery offered the best chance of getting it all. Comparable

long-term survival statistics aren't yet available for many other treatments. Surgery allows examination of the prostate to get the most accurate picture of the cancer's spread. Treatments such as radiation can usually still be tried after surgery, but often not vice versa. Part of our decision was not so rational: we both just felt more negative about being irradiated than being cut.

Was I right to go for a "hit it with everything you can" strategy rather than hope the cancer would be slow-growing? Post-op pathology of my prostate revealed some much more

aggressive cancer than the biopsy had showed; it had extended into, but not through, the prostate's capsule. I'm glad I didn't wait. Two months post-surgery, my PSA is undetectable. I'll need to keep monitoring it forever, but it's where I want it to be now. Continence? No real problem. Potency? It's too early (I hope!) to know; the nerves were spared, but they can take months to heal. Did I make the right decisions? I'll never know. I made the best one I could, with the information at hand and the help, love, and prayers of lots of friends. I couldn't ask for more. 

PROSTATE CANCER ACCESS

RESOURCES ABOUND. THESE WERE THE MOST HELPFUL TO ME. —MKS

BOOKS

PROSTATE CANCER Treatment Guidelines for Patients

The National Comprehensive Cancer Network (NCCN) and the American Cancer Society (CS)

2001 (Version 11); 57 pp. Free from NCCN. 888/909-6226, www.nccn.org

Not as detailed as other recommendations, but a helpful introduction, with useful decision trees to walk the reader through choices at each stage from screening through post-treatment follow-up.

DR. PATRICK WALSH'S GUIDE TO SURVIVING PROSTATE CANCER

Patrick C. Walsh and Janet Farrar Worthington

2001; 352 pp. \$25.95 Warner Books

Patrick Walsh is famed for inventing nerve-sparing surgery, the breakthrough that now allows 25–75 percent of men (depending on age, health, etc.) to regain potency after surgery. The *Guide* covers everything in about as much detail as I could stand, especially at first. Walsh clearly calls surgery "the gold standard," but covers other therapies fairly. Some of his specific recommendations (e.g. waiting two to three months before the first post-op PSA test) are minority positions.

THE ABCS OF PROSTATE CANCER The Book That Could Save Your Life

Joseph E. Oesterling and Mark A. Moyad 1997; 364 pp. \$22.95 Madison Books

By the time I got to this book, I knew enough that some of it felt a little simplified, but it would have been a very good introduction. Especially useful are charts for each treatment option, with clear summaries of pros and cons, survival rates, and percentages of patients experiencing various side effects.

Personal stories from famous survivors (why so many Republicans?) and from the loved ones of non-survivors may be the jolt a man needs to get himself checked. The testimonials from well-known African Americans are especially poignant, given the much higher incidence of PCa in the black community.

MAN TO MAN Surviving Prostate Cancer

Michael Korda 1997; 272 pp. \$13 Vintage

The renowned Simon & Schuster editor lays bare his doubts, fears, troubles, and coping strategies, from the time of his diagnosis through nine months after surgery. Remarkably candid. My only hesitance is that so

much goes wrong during and after Korda's hospitalization. Many people, including me, didn't have nearly as many complications as he did, and reading this book before my surgery may have unnecessarily increased my anxieties.

ILLNESS AS METAPHOR AND AIDS AND ITS METAPHORS

Susan Sontag 2001 (reissue edition); 183 pp. \$13 Picador USA

Picador has just reissued these classics, first published in 1978 and 1989. Sontag wrote *Illness As Metaphor*, she said, because "the metaphoric trappings that deform the experience of having cancer have real consequences: they inhibit people from seeking treatment early enough, or from making a greater effort to get competent treatment. The metaphors and myths, I was convinced, kill." They still do.

ONLINE RESOURCES

PROSTATE PROBLEMS MAILING LIST

Sign up on www.acor.org/prostate.html or by sending an email to LISTSERV@LISTSERV.ACOR.ORG with a blank subject line and a message of SUB PROSTATE Firstname Lastname [i.e., your name]

This unmoderated forum,

one of 143 under the umbrella on the Association of Cancer Online Resources, discusses all manner of problems and treatments. Everyone in it is in the same boat, and the atmosphere is respectful, supportive, and forthright. Which isn't to say that everyone is in agreement. Lots of pointers to new research and other resources.

RP

Subscribe via www.prostatepointers.org/mailman/listinfo

A listserv devoted to concerns of men—or loved ones of men—who have had or are contemplating a radical prostatectomy. I posted a question one day, and had six emails by the next day with recommendations from men who had dealt with the same problem.

The same website is also a portal to listservs focused on each of the other major treatments.

PHOENIX5

www.phoenix5.org

A library of information, much of it written by families and survivors, with good links to articles and other resources. I found the following two especially useful:

TAKING ON PROSTATE CANCER

Andy Grove with Bethany McLean. www.phoenix5.org/articles/Fortune96Grove.html

This 1996 *Fortune* article by Intel founder Andy Grove recounts the methodical analysis that led him to choose brachytherapy. Considered a standard in many PCa circles.

RADICAL PROSTATECTOMY SURVIVAL MANUAL

Ron Voss and Janet Olson www.phoenix5.org/Basics/treatsides/vossRP/vossRP1.html

This first-person account by a man and his wife gave us some of the best info on how to prepare for surgery, items to bring to the hospital, what to expect. Our experience was slightly different from theirs, but we were readier to respond to problems because of what we learned from them.

SUPPORT GROUPS

P5's LIST

www.phoenix5.org/supportgroups.html

Includes contact information for groups in about twenty states, plus national networks.

MAN TO MAN

Call 800/ACS-2345 for info on local meetings of the American Cancer Society's support network

US TOO PARTNERS

www.ustoo.com/partners.html

Groups for partners of men with PCa.

One in Four Women Has Fibroids

Reading this book was a been-there, done-that thing for me. One in every four women has fibroids, but hardly any information is readily available that isn't contradictory and often incorrect—including information from the medical profession. For many women and those who care about them, this book is a resource for dealing with fibroids and their consequences. The chapter on pregnancy is particularly important. The sections on diet, herbal treatment, and other approaches are a wealth of hard-to-find information, and include helpful comparison charts. The appendix, which contains a bibliography, websites, and other resources, is a giant step forward. The author, another member of the fibroid club, clearly has her own agenda about treatment options (I did not choose one of hers). Still, she provides good information about fibroid symptoms, treatments, and alternatives. I intend to buy this book for several friends who are struggling with decisions about their options.
—Daphne Derven

“We know that Western medicine works a certain percentage of the time: For most fibroid treatments, doctors can tell you with a fair degree of certainty what you can expect and when. And Western medicine is, for better or worse, fast. Like many aspects of our society, Western therapies for fibroids offer a certain amount of instant gratification satisfying to those of us who don't feel we have the time or patience for anything but an instant “fix.”

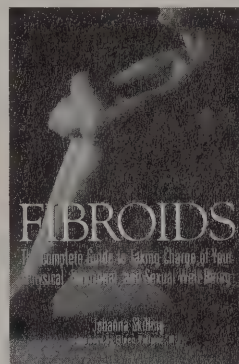
Alternative treatment moves at a different pace. Treatments are often slow; the course of treatment may be months or years instead of literally hours....Unlike conventional medicine, alternative therapies can't make any guarantees: Your fibroids may shrink, or they may not.

“As any woman who's been pregnant knows, the uterus and the bladder are kissing cousins inside your abdomen. A larger uterus makes your bladder smaller, forcing more frequent trips to the bathroom, often for minute amounts of urine.

Pressure from a large uterus can also squeeze the ureters, the tubes that transport

urine from the kidneys. This can reduce flow, and in serious cases, if urine backs up into the kidneys, can lead to kidney infection and damage....

The symptoms you might feel include an increased need to urinate, sometimes really badly, sometimes without being able to go at all or just a little. Or you might experience urinary incontinence—leaking—when you sneeze, laugh, or exercise hard.



Fibroids The Complete Guide to Taking Charge of Your Physical, Emotional, and Sexual Well-Being

Johanna Skilling
1999; 276 pp.
\$15.95
John Muir Publications

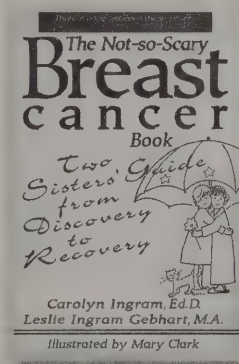
Breast Cancer Demystified

My first reaction to this book was really negative. I made myself look at it because I think that Breast Cancer is scary and I've had a few scares myself. Scary is justified. Breast Cancer (somehow I have to capitalize it) is the most common form of cancer in women and something that every single woman is at risk of developing. A case will be diagnosed every three minutes and a woman dies from it every twelve minutes.

This is the real story of two sisters who went through all the stages—both as patient and as comforter. I realized that what I initially reacted to was the very elementary text and drawings. Then I remembered that, whichever of these two roles you might ever find yourself in, everything seems overwhelming. The level and parceling of information here is actually just what's needed; no surprise, since these two women know firsthand what life is like under these circumstances. This is a helpful, positive, and very comforting book which I hope you never need. —DD

“After surgery, I didn't know how much I could use my arms so I didn't use them. Later I found out how much better I felt when I brushed my hair and teeth, arranged flowers, and did the little tasks which helped me ease

back into the world. I took lots of naps. About four months after surgery, I started golf lessons. Swinging a golf club (without having told my teacher about my surgery) was therapeutic in many ways. I laughed to myself when I thought about golf as range of motion help instead of about a score.



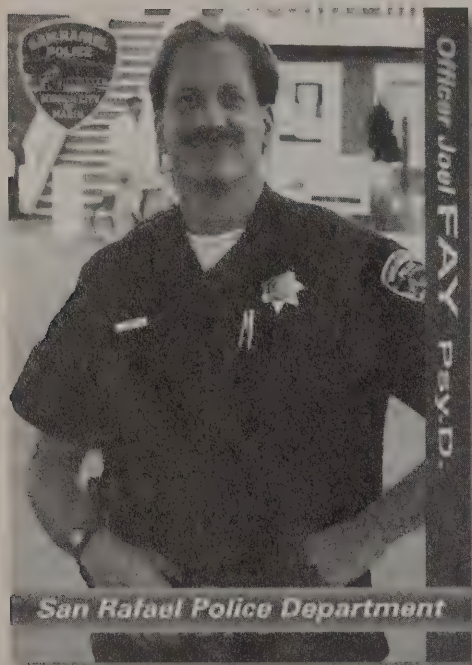
The Not-So-Scary Breast Cancer Book Two Sisters' Guide from Discovery to Recovery

Carolyn Ingram and Leslie Ingram Gebhart
1999; 176 pp.
\$14.95
Impact Publishers



Doc Cop

Officer Joel Fay Helps Mentally Ill Homeless People Get Off the Street and Into Care



Joel Fay's baseball card.

BY CHERINE BADAWI

A few months ago, almost every day, we heard a girl moaning up on the hill behind our office (the hill has been an encampment for a wide variety of homeless people for years). One day the moans turned into screams. David, Devon, and I raced outside to find a distressed, incoherent woman crying and yelling and wandering around aimlessly. Eventually somebody went for help. The next day I walked back up the hill and came across a homeless man. "Is the girl who was screaming okay?" I asked. "Yeah, she's okay," he answered. "She has schizophrenia. If you ever hear her again, get Joel Fay. He's a cop. She'll listen to him."

Get Joel Fay—a cop? In a city where relations between the police and the homeless community have frequently been uneasy, at best? We wanted to know who Joel Fay was and what he was doing to help the people living up the hill. We sent intern Cherine Badawi to interview Joel. —EP

Joel Fay is a San Rafael city cop. But not a conventional cop. He drinks decaf and rarely indulges in doughnuts. He's also a psychologist who is the mastermind behind an exceptional effort called the Mental Health Liaison Program (MHLP). Since its inception in 1999, this countywide program has merged the work of mental health professionals, cops, and homeless advocacy groups to help members of the homeless community living with mental illness get off the streets. MHLP is the first and only program of its kind.

It's working. Homeless people who have been living rough around Marin County for decades have successfully been integrated into permanent housing. The folks on the street don't climb over walls, fearful of the warrants out on them, when this particular man in uniform approaches. To them, he's not just a cop. He's Joel, and he's a good guy. —CB

CHERINE BADAWI: You're a cop, you're a doc...a rare combination. What's the story?

JOEL FAY: I've been a police officer since 1975. I've found that police officers are much more psychologists than sharpshooters. In twenty-five years I've never fired my gun except at a range, but I do psychology every day. Whether you're trying to encourage someone to open up or you're going to a domestic violence scene to deal with a man that's furious and knows you're going to arrest him, you have to know how to talk to people, so

I decided to go back to graduate school and study psychology.

CB: What do you do every day?

JF: It varies, but in general I work with people who are mentally ill and are having interactions with law enforcement. My job is to figure out how to

As someone in our program said, "You can't arrest a person enough times to stop them from being mentally ill."

get them out of the law enforcement interaction loop. Frequently people who are mentally ill get caught in a cycle. We arrest them, mostly for minor crimes. We put them in jail where they can't be mandated to take medication. They get their sentence. They're out. They go back to the same behavior, because they're still mentally ill, and we have to arrest them again. As someone in our program said, "You can't arrest a person enough times to stop them from being mentally ill."

CB: How was the Mental Health Liaison Program born?

JF: It was born in a conversation with San Rafael Chief Mike Cronin, who was a captain then. He had been assigned the task of dealing with the homeless population in downtown San Rafael. We have a foot beat that goes out and cites people for disruptive things they might do, but it wasn't working for the mentally ill folk. What I found was that nobody was working together. The mental health agencies

were doing their thing, but they had limited authority to force help on people. The police department was throwing people in jail, but they couldn't offer treatment. By bringing together the tools of criminal justice and mental health, we're finding that we can get mentally ill people who break the law the help they need.

CB: How did you do it?

JF: As part of MHLP, we created the Forensic Multidisciplinary Team to deal with individuals on a case-by-case basis. The team consists of representatives from the ten police departments in Marin County, as well as representatives from about fifteen different agencies that advocate for the homeless or the mentally ill. We meet every month.

Here's how it works: Say I have a mentally ill guy on the corner who's creating a problem. I go to the team and say "Bill" is on the corner, I don't know what to do with him. Throwing him in jail doesn't do anything. Any ideas? Then everyone on the team tries to create a plan to engage Bill. Maybe he needs jail for a while, until he gets off of street drugs, and then we could try to convince him to take medication for his mental illness, or maybe we should do some outreach work, find him a social worker or an extended stay at detox.

We do what we can with each case, then meet the next month, evaluate the results and modify the plan to suit the individual we're trying to help. Our policy on the forensic team is that we never give up, so nobody is off the roster until they've been transferred out of criminal justice over to mental health. Ultimately our goal is to get them into treatment and make sure they're secure, then we move on.

CB: What have you learned from the program?

JF: The most important lesson is that individuals who have been considered "untreatable" can be successfully treated when a community works together.

CB: How do mental health agencies work with law enforcement?

JF: Law enforcement folks like to deal with problems quickly, one after the other. Mental health people like to sit back and process the information and talk about what we think is ethically the right thing to do. And what we've found here in Marin is that mental health has begun to take the law enforcement perspective of, "Hey, let's get something done," and law enforcement has taken the mental health perspective of saying, "Maybe trying to resolve it right now isn't the best idea. Let's think about what's best in the long term."

CB: What is your success rate?

JF: Besides the people I work with on a daily basis, the forensic team averages about two extended cases of long-term mentally ill homeless people each month. At this point we're better than 50 percent at getting people off the street and into housing. So far, none of the mentally ill homeless integrated into housing and treatment over the last two years have been rearrested. The people we haven't succeeded with, we're still working with.

CB: Would you share a success story?

JF: There are so many! There's a gentleman. Let's call him Bill. Bill had been homeless for over twenty years. For eleven years, he lived up on San Rafael Hill. He graduated valedictorian from his high school class. He graduated from college *summa cum laude* in mathematics. He taught high school math. He's been a semipro basketball player, a professional jazz guitarist, and he was homeless for over twenty years because he's mentally ill. His family thought he was dead.

A lot of agencies tried to help Bill, but it never worked because he didn't recognize he had a problem. When we presented him to the team and incorporated the work of all these different agencies, we were able to get Bill into

a crisis unit, then into a hospital and onto medication, and now he's off the streets in permanent housing.

CB: Is there a basic profile of the people you try to help?

JF: It's really all over the board. A pretty equal number of men and women. Old and young. The vast majority of the mental illness we see is schizophrenia; the second most prevalent is bipolar disorder. Many homeless folks are dual-diagnosed (with substance abuse and mental illness), and can be aggressive, which is why no one wants to deal with them on their own.

Homelessness and Mental Illness

- In 1996, an estimated 637,000 adults were homeless in a given week. In the same year, an estimated 2.1 million adults were homeless at some point.
- Nationwide, 39 percent report some form of mental health problems; While only 4 percent of the US population have serious mental illness, five to six times as many people who are homeless (20-25 percent) have serious mental illness. Up to 50 percent have co-occurring mental illness and substance use disorders.
- Untreated mental illness can cause individuals to become paranoid, anxious, or depressed, making it difficult or impossible to maintain employment, pay bills, or keep supportive social relationships, causing distress to those who observe them.
- Mentally ill homeless people are typically long-term citizens of the communities in which they are homeless.
- They are impoverished, and many are not receiving benefits for which they may be eligible. Their social support and family networks are usually unraveled.
- They are twice as likely as other homeless people to be arrested or jailed, mostly for misdemeanors.
- The majority have had prior contact with the mental health system. These experiences were not always positive. They may have been hospitalized involuntarily or given treatment services or medications they did not feel were of benefit.

—Source: The National Resource Center on Homelessness and Mental Illness, www.nrchmi.com

The most important lesson is that individuals who have been considered “untreatable” can be successfully treated when a community works together.

CB: How many homeless people are living with mental illness?

JF: In Marin County, I would speculate about 40–60 percent of the homeless population is living with some kind of mental illness.

CB: Are the resources and funding you need available?

JF: We have to do a lot of work before we can get the mentally ill homeless into housing. We do have the resources to do that work: medicine, social service workers, treatment centers. In Marin, though, the problem that remains is finding affordable housing. That will always be an issue.

CB: To what extent do you follow up?

JF: I advocate for people to get Social Security. I advocate with housing. I find that my primary role is to get other people to do what they're sup-

posed to do, so I will go wherever I need to go to convince people that this is the right thing to do for a particular individual.

CB: Are other police officers without your expertise capable of gauging mental illness?

JF: In Marin, the officers have me as a referral, so if they suspect an individual may be mentally ill, they can refer him to me. We just received a grant that will allow us to start a training program focusing on mental illness. About 15 percent of the officers will go through forty hours of training so they will be better able to make at least a rough diagnosis and have a better idea of what to do next, whether it be jail or crisis intervention. We also received a grant that will go toward our “CopDoc” program, and will enable us to send two more officers to graduate school to pursue advanced degrees in psychology.

CB: How do the other cops respond to you?

JF: At first I think there was a lot of skepticism. “What exactly are we doing and why are we doing this?”

Why isn't mental health dealing with this?” But I think over the last couple of years, the officers are recognizing that I take the cases that are very difficult, the ones they do not have the resources to resolve, and I'm given the time to spend with these people to deal with their problems. That means, on their beats, I can take problems away. Judging from the number of referrals I get from other police officers (nonstop from six in the morning to seven at night, sometimes beyond), I think they look at me as a resource.

CB: What would you advise a community that doesn't have the same resources as San Rafael?

JF: I think every community has the resources. Initially, we had no funding for this project. It wasn't about extra money; it was about using what we had—but better. It was really about cooperation and figuring out how to get all these agencies to work together. You need somebody who is able to cross over jurisdictions. You need people on the mental health side who are willing to work with law enforcement and people on the law enforcement side who are willing to work with mental health.

CB: Have you considered taking this work to other communities?

JF: I've spoken in Australia about this work. I sent information to Santa Barbara, I've talked in Oregon. And now I've received some inquiries from San Francisco so I'm giving them some information.

I'd love to see it in other communities. I think every community has the strength to do this work, they don't need me to do it. What they need is just to decide to work together. If you look at it piece by piece, you accomplish it one piece at a time. And then you add up all those little pieces and you recognize, “Wow, we've really accomplished something.”

People wanting to learn more about Joel's work can email him at joel.fay@srdp.org.

In today's America, homelessness doesn't hide. Nonetheless, myths about homelessness go unchecked and public understanding remains insubstantial. American Homelessness provides answers. It details the whos, whys, and hows of homelessness, comparing American experiences and responses with those in Britain, Europe, Canada, and Australia. Encyclopedic in scope, American Homelessness is a valuable resource for anyone interested in learning more about homelessness and the efforts to alleviate it. It offers statistics and theories of causes and cures, and discusses legislation directed at homelessness. It profiles leading advocates for the homeless, and features a 38-page directory of organizations and

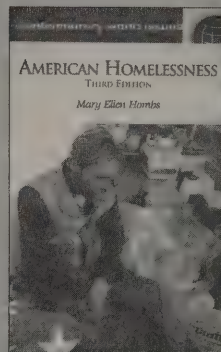
print and nonprint resources. This book provides a solid entry point to a better understanding of the myriad complexities surrounding homelessness and the resources available for responding to it. —CB

“Traditionally, homelessness prevention efforts have focused on keeping people housed by offering assistance for rent, mortgage, and utility payments. Discharge planning supports the notion of preventing the movement into homelessness of individuals for whom other systems bear responsibility. For instance, in the legal case *Brad H. v. City of New York*, the Appellate Division of the New York Supreme Court's decision, on October 31, 2000, required New York City to provide

discharge planning for jail inmates who have a mental illness and are prone to become homeless and to recidivate.

American Homelessness

Mary Ellen Hombs
2001 (3rd ed.); 299 pp.
\$45
ABC-CLIO



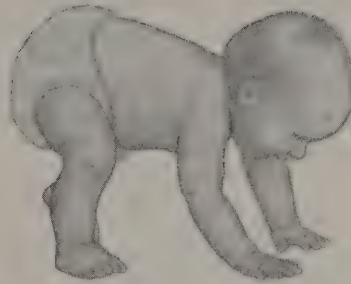
got kids?

tools for navigating parenthood

How do we shape our lives to create a safe niche for ourselves and our children? How do we live as part of extended families as well as with other creatures with whom we share our planet? Many of us parents have looked for guides to the right way to raise our kids, and frequently have come up with nothing. No formula has been an exact fit for the personalities of our children, our families, and ourselves as parents.

Instead, we have followed our own intuitions, guided by reading the evidence on all sides of an argument. Parents will come to different conclusions, according to their socio-economic circumstances, experiences, and ideals. We have gathered here resources that we have found helpful.

—Stephanie Guyer-Stevens and Thalia DeWolf



Having Faith An Ecologist's Journey to Motherhood

Sandra Steingraber
2001; 342 pp.
\$26. Perseus Publishing

Arriving at the intersection of her professional work as a biologist and her newfound path to motherhood, Susan Steingraber applies the facts from one to the other. This book is both a response to the chaotic, unpredictable process of motherhood in the face of modern technology and an assessment of the ecological precariousness into which we are now birthing our children. It moves smoothly through hard facts. As a mom I related to her stories so intimately that I cried in parts, and then pored over details of studies relating to toxins in the environment with my pen in hand.

Women are told to abstain from a variety of foodstuffs during pregnancy, in order to protect their unborn, but POP (persistent organic pollutants) levels in most fish remain uncontrolled, and ultimately produce as great a danger to the fetus and the nursing infant as drinking forbidden alcoholic beverages and cleaning the cat litter box. Why is this so? If our great concern is fetal health, why can't we address it? And why is medical intervention considered so much more safe than natural, noninterventionist childbirth?

This is a personal journal of pregnancy through childbirth, brilliantly integrating a touchingly personal story with the data about the polluted ecosystem faced by mothers and children the world over. —SGS

“A mother. A stroller. A dozing child. To all outward appearances, this must seem like a

perfectly ordinary scene. It occurs to me that there should be some kind of ceremony for the commencement of weaning, as there is for birth, marriage, and other rites of passage. So I whisper a little prayer of commemoration. Sleeping girl, I release you from my breast into the world, where the tides run with fish and berry bushes flutter with migrating birds.

Out on the breakwater, fishermen wave to us as we roll by, and I wave back. They are angling for bluefish, and striped bass. Both are species the state of New Jersey considers too contaminated for children, women of childbearing age, pregnant women and nursing mothers to eat. Dioxin. PCBs. Chlordane...

May the world's feast be made safe for women and children, May mother's milk run clean again. May denial give way to courageous action. May I always have faith.

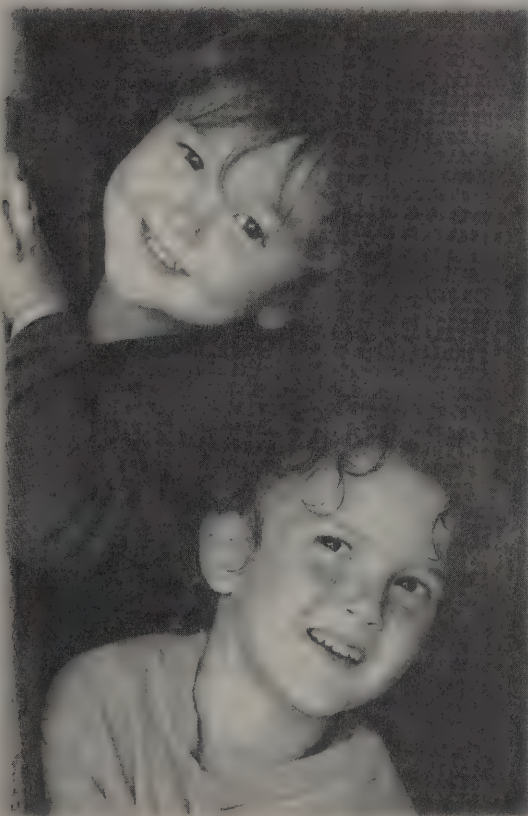
“Anesthesia and narcotics can slow down contractions so much that labor grinds to a halt. To speed things back up, uterine-stimulating pitocin is dripped into a mother's veins. This procedure requires fetal monitoring to ensure that the baby is not overly stressed. Tethered to IV poles and ultrasound equipment, the now-actively laboring woman is unable to change her position to alleviate pain. She therefore calls for more drugs. Lying on her back also places the perineum at risk for tearing during delivery and leaves her without the assistance of gravity to help ease the baby out, so she soon receives an episiotomy to widen her vaginal opening and hasten delivery. Thus, anesthesia requires pitocin requires monitoring requires anesthesia requires genital surgery.

The Price of Motherhood Why the Most Important Job in the World Is Still the Least Valued

Ann Crittenden
2001; 323 pp.
\$15. Owl Books

This is one of the books that I want to buy a hundred copies of to give to all my friends. In one way, shape, or form, this is the story of every mother I know.

I remember reading an article by Ann Crittenden back in the seventies, in which



JOHN RUSSELL

Jasper and Malia Guyer-Stevens

navigating **parenthood**

she tallied up the cost of the services which are required of a mother to raise a child, and arrived at a phenomenally high figure.

At that time, women of my mother's generation saw the solution as taking back the workplace from the men who completely owned it. That was the huge battle of the women's movement of the seventies. I remember my own father's outrage at my mother's going to work outside the home.

No matter their income level, women still take a financial hit in order to raise their own children. Not only do they not receive any income for this most pivotal role they are playing in the planet's future, but they lose a heck of a lot of money; and often their professional credibility goes out the window along with their credit rating. This book is a brilliant reexamination of the economics of motherhood. After looking at the numbers, it's amazing we all still do it. —SGS

“Consider what happens to the salary of a woman who makes \$30,000 a year and is married to a man who earns \$60,000. As her income is taxed not as the earnings of an individual, but together with her husband's wages, she faces an effective tax rate of roughly 48 percent: an income tax rate of 30 percent, beginning on her first dollar earned; Social Security taxes of 8 percent; and state and local taxes of up to 10 percent in many states. This brings her take-home pay down to roughly \$15,000. Child-care expenses, which are not deductible as a business expense, can cost easily \$10,000, and other work-related expenses, like clothing, commuting, and meals, can add another \$4,000 or so on to the family budget.



Kangaroo carry, or forward-facing position.

The typical mother will soon enough hear what tax expert Edward McCaffery calls “the accountant's tale”: the news that if she doesn't actually lose money by working, she can expect to end up with no more than \$1,000 to \$2,000 from a full time job that pays \$30,000.

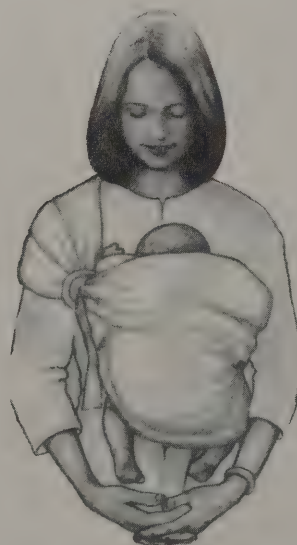
“A female German parliamentarian once told NOW president Patricia Ireland that she had a dream in which she interviewed a young man. “Oh, you have such outstanding credentials,” she told him, “but we are looking for well-rounded people. We see you have never spent any time with children. But there's still time. You're still young. Come back when you have a broader life experience.”

The Baby Book **Everything You Need to Know about Your Baby from Birth to Age Two**

William Sears and Martha Sears
1993; 689 pp.

\$21.95. Little, Brown and Company

Widely regarded as the post-Spock baby-care bible, this is the baby book to have. Written by medical professional seasoned parents of eight, it is a thoroughly complete and up-to-date resource for all types of new parents, from really mainstream to really alternative. It covers all the basics (birthing, infant care, child development, transition to parenthood) and then some (keeping your marriage alive and intimate, with kids!). It defines and makes the case for attachment-style parenting (based on creating strong emotional bonds between infants and parents) with hard evidence and sound reasoning, no railing or preaching. The book offers no recipe for “the perfect family”; new parents are urged to create their own uniquely flavored soup. —TD



Snuggle hold.

THE BABY BOOK

“Meeting your baby's needs without hesitation in the early months means solid communication patterns are developed. With time you can gradually delay your response, and gradually your baby will learn to accept waiting a little bit as she learns noncrying language and develops self-help mechanisms. If nothing else, consider it an investment in the future; you'll be glad for good communication when she gets older and her problems are bigger than being fed or getting off to sleep.

“Toddlers' walking styles are as variable as their personalities. Most begin walking with feet turned out, a position that improves balance. Next, as you are beginning to worry about turned-out feet, baby exchanges one worry for another and becomes pigeon-toed. You can put off your mother's suggestion to take baby to an orthopedic specialist. Most toddlers' legs and feet straighten by themselves by three years.

Sticks and Stones **Seven Ways Your Child Can Deal with Teasing, Conflict, and Other Hard Times**

Scott Cooper

2000; 194 pp.

\$13. Random House

This practical and poetic book provides a crash course in basic emotional intelligence, essential communications skills, and conflict management. It supplies help with teasing, and outlines seven important verbal tools for family life. Yes, we adults especially need this book. We are encouraged, with straightforward explanations and role-playing scenarios, to coach children's emotional education. Cooper presents his tools as a practice, not dead-end goals, and shows how mindfulness is fundamental to living life with children. The book offers hands-on help in negotiating the murky emotional waters of children's relationships to peers and parents, written warmly and sincerely. —TD

“The Mighty Might is a technique that can be used in a lot of tough verbal situations. It's especially good to use when people are blaming or teasing us. Sometimes people use blame to try to make us feel bad. With the Mighty Might you neither agree nor disagree with the blame. Instead, you use statements or words like “You might be right” or “You could be right” or “maybe” or “possibly,” then you simply shrug the conversation off. Rather than get into an argument, or try to answer their criticism, you simply leave them with nothing else to say.

“Kids also need the skills to deal with us, their own parents, especially when, too distracted by the daily hustle and bustle, we forget to be kind and reasonable.

Circle Round

Raising Children in the Goddess Tradition

Starhawk, Diane Baker, and Anne Hill

1998; 437 pp.

\$14.95. Bantam

I would talk long into the night with my friend Ann about how to reconcile our own distance from organized religion with our desire to offer our children a spiritual awareness—a wonder and reverence—about the world. Lo and behold, along came Circle Round. I don't feel I need to be a practicing pagan to relate to the rituals and stories that teach children how to honor the Earth, and themselves as creatures on it. For me, this book fills a gap by offering a light on the path to helping children develop a spiritual soundness that offers real strength.

This is a heartfelt book that resonates with honest voices in expression of what the authors believe and hold dear. But it is also a book full of fun and entertainment, as family life should be. If you like, skip the goddess stories and celebrations, and cut straight to the beautiful seasonal crafts and projects that the authors have gathered. Or use this as an opportunity to learn along with your child about the goddess tradition to which Starhawk and her contemporaries have dedicated decades of research.

Where else can you find a practical description of how to put up a maypole these days?

—SGS

“Maypole Construction

Your maypole can also be a long piece of wooden dowel or metal pipe, two inches in diameter. To set this up on a lawn or meadow, you need a short piece of pipe (about eighteen to twenty-four inches long) with a slightly larger diameter than your pole. The pole should be able to slide easily into the short piece of pipe. Taking a sledgehammer, pound the short pipe into the ground until approximately one foot is left above ground, then slide in the pole. The short pipe will pull out of the ground afterward with a minimum of disruption to the surrounding sod.

“Eostar is a joyful holiday, centered around symbols of rebirth and growth: eggs, seeds, baby animals. But Eostar also has a deeper meaning. Because this is the time of balance between dark and light, it is also the time when we examine all kinds of balance in our lives—in particular, the balance between life and death. Birth is a time when the gates between the worlds are open. The seeds that were buried in the ground return as new shoots. Bulbs sprout and flower. And the dead return from the Otherworld as new beings.

Kids, Parents, and Power Struggles

Mary Sheedy Kurcinka

2000; 318 pp.

\$13. HarperCollins

This is a great book to read before you have kids. Kurcinka throws us a rope and liberates us from an all-too-common parental ledge: being stuck between “winning” and “losing” with children. She unlocks the hidden undercurrents that produce fights and offers alternative routes she has gleaned from twenty years of working with families. Temperaments of children and parents play a crucial role within families, and Kurcinka explains how to make the most of these unique constellations. Empathy and understanding, not sympathy and control, are shown as the winners in unlocking battles. These tools can help create an optimistic family atmosphere, where struggles may still erupt but not as often and not as fiercely. —TD

“If you are an introvert or a more factual person yourself, and your feeling child's venting is exhausting you, you can let her know your limitations and encourage her to find other listeners besides you. Remember, too, that not every emotion needs a solution; it may simply need to be expressed.

“This style of discipline is called “emotional coaching,” and the latest research on human brain development tells us that enhancing your child's emotional intelligence is more important to his success in life than is his IQ.

California Homeschooler

Mia Ousley, ed.

\$30/yr (6 issues)

HomeSchool Association of California

PO Box 868, Davis, CA 95617

888/HSC-4440, www.hsc.org

A little of something for every homeschooling family, from newbie to experienced (and all without distracting curriculum advertisements!). Keeps you up-to-date on legal issues and homeschoolers in the news. Articles, by both parents and kids, report what they are doing and why, what's working and what's not. The magazine provides a wonderful list of local and national contacts and resources. Each issue centers on a theme (“Homeschooling and Single Parenting,” “Performing Arts,” “Homeschooling with Animals”) and includes my favorite column, “The Handwriters,” where our fears are aired and laughed away. —TD

Mothering

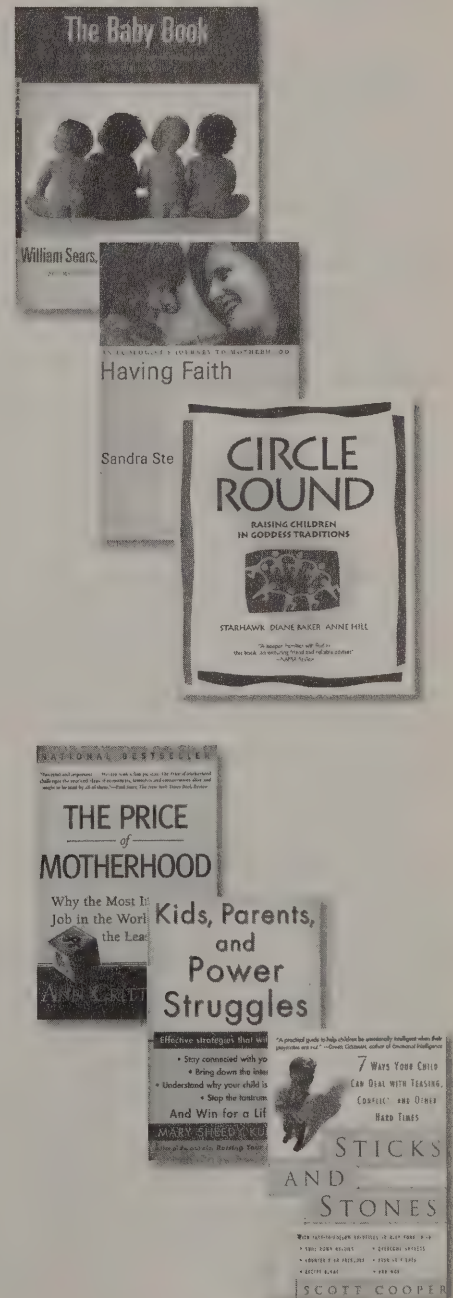
Peggy O'Mara, ed.

\$18.95/yr (6 issues)

PO Box 1690, Santa Fe, NM 87504

800/984-8116, mother@pcspublink.com

Peggy O'Mara has created an opportunity for many voices of alternative parenting to be heard. I have found terrific support in scientifically documented arguments against routine vaccination. I have raged at the inadequacies of an article supporting lactation as a form of birth control. Sometimes I don't even get past the letters section, full of readers' passionate responses. —SGS



The Underground History of American Education
A Schoolteacher's Intimate Investigation into the Problem of Modern Schooling

John Taylor Gatto
 2002; 440 pp.
 \$30. Oxford Village Press

John Taylor Gatto's writings have been challenging Whole Earth readers since the 1980s. Among his writings we've published are his acceptance speech as New York State's Teacher of the Year (which he used to bash the institution of school) and an excerpt from his Dumbing Us Down (New Society Publishers, 1992). —MKS

Gatto's latest is an engaging, exhaustive opus that dissects the mythology, origin, evolution, and industrialization of the public school system in America. He argues that the captains of industry in the late nineteenth and early twentieth centuries guided, funded, and at times forced compulsory schooling into the mainstream of American society because they knew they needed three things in order for their interests to thrive: 1) compliant employees; 2) a guaranteed and dependent population; and 3) a predictable business environment encompassed by a rigid, caste-like social hierarchy of haves and have-nots. It is toward these ends—and not education—that modern compulsory schooling was unleashed.

He insists that we refuse to accept the idea of school reform—"no amount of tinkering will get us out of this mess." Charter schools, higher standards, rigorous demands on teachers, and smaller class size, he writes, are all diversions, aimed at keeping us from striking at the real heart of the problem. In the end, he argues, the notion of school itself must be challenged. —David Kupfer

"By the end of 1999, 75.5 million people out of a total population of 275 million were involved directly or indirectly in providing and receiving what has come to be called education. An unknown number of millions indirectly. About 67 million were enrolled in schools and colleges (38 million in K-8, 14 million in secondary schools), 15 million in colleges, four million employed as teachers or college faculty, and 4.5 million in some other school capacity. In other words, the primary organizing discipline of about 29 percent of the entire US population consists of obedience to the routines and request of an abstract social machine called School. These figures are expected to grow substantially through the first decade of the new century.



Fighting Invisible Tigers
A Stress Management Guide for Teens

Earl Hipp
 1995; 155 pp.
 \$12.95. Free Spirit Publishing

Highs!
Over 150 Ways to Feel Really REALLY Good...Without Alcohol or Other Drugs

Alex J. Packer
 2000; 250 pp.
 \$14.95. Free Spirit Publishing

Stress in teens, while hardly new, seems compounded these days as a consequence of many schools' increasing restrictions and requirements, to say nothing of the burdens of corporate culture and life in the twenty-first century. These are two valuable books for kids, parents, and teachers. Both are solution-oriented and draw from a variety of schools and practices. Fighting Invisible Tigers conveys the pressures and problems encountered by teens, and offers them information on life skills, self-care, stress reduction, and practical methods of gaining greater control over their lives.

Highs! is a useful collection of pathways to altered states of consciousness. With America becoming the self-medicating society and young people frequently doing their best to emulate older folk, this book is timely and transgenerational. From Zen koans to aural meditation, bobsledding to journaling, rolling to silence to building a tree house, the many reality escapes are described in a fun, playful, familiar manner. Many chapters have first-person testimonials from teens. Included are a panoply of how-to lists and a catalogue of leads for finding organizations, websites, books, and publications. Highs! has been a tough book for me to hang onto; friends I have shared it with want to keep it for themselves. —DK

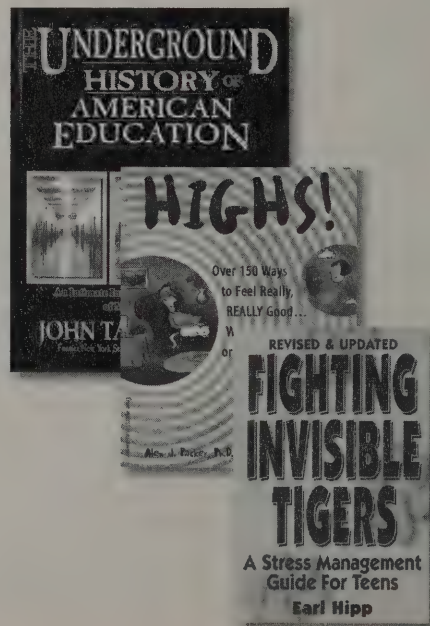
"Schools are struggling with change and trying to become more effective at preparing

young people for their own futures. But it may be some time before they do their part to teach young people all the skills necessary to become competent, successful adults. In the meantime, you may not get much help in acquiring new life skills. You might even face a great deal of resistance if you push the system to meet your needs.—*FIGHTING INVISIBLE TIGERS*

"It's true that many non-drug highs require practice, knowledge, patience, or training. But people who practice natural highs report that they get *more* peace, pleasure, and insight from these kinds of experiences than they ever did from taking drugs. And natural highs don't leave you feeling dull, exhausted, or hung-over. The best highs are not from a chemical substance, but from a way of life. The best highs are the ones you create for yourself. —*HIGHS!*

"Kids instinctively sense the language and emotional benefits of being touched. But by the time they become teenagers many of them have lost touch with being touched. They don't give or get as many hugs and kisses as when they were small. Boys especially may internalize messages from society that say "real men don't touch."

...In many cultures, teenagers of both genders routinely greet their friends (of both genders) with hugs and kisses. They walk arm-in-arm. In America, touch has become so sexualized that we tend to repress our instinctive need for physical connection. Don't let America's juvenile attitudes towards touching and sensuality inhibit your enjoyment and expression of this sense. —*HIGHS!*



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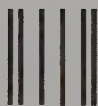
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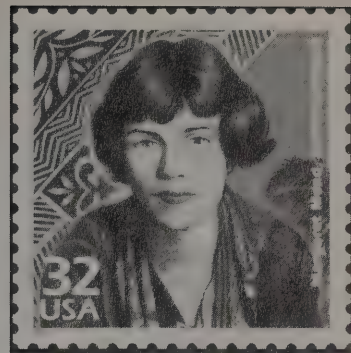
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MEAD2001 AWARD WINNER



BHOPAL PEOPLE'S HEALTH AND DOCUMENTATION CLINIC

From 1999 through the centennial of Margaret Mead's birth in 2001, *Whole Earth* and the Institute for Intercultural Studies (IIS, Margaret's Foundation) joined to honor small groups of thoughtful, committed citizens who have changed the world.

In the words of the IIS's Centennial Committee:

"Margaret Mead always believed in the human capacity to change, insisting that the cultural habits of racism, warfare, and environmental exploitation are learned. She promoted human diversity as a teaching tool; pointed to traditions and new institutions that had successfully adapted to a changing world; and praised groups who were inspirations, models and vehicles for learning from one another. Her goal was nothing less than intercultural and international understanding as a foundation for human freedoms.

"These awards honor organizations that reflect Mead's broad sense of the relevance of anthropology to social action: groups that have demonstrated effective, imaginative, and compassionate actions on race, gender, culture, environmental justice, child rearing, and self-empowerment within communities. Mary Catherine Bateson, president of the IIS and Mead's daughter, says: 'We want to recognize groups of committed citizens who have created a level of community awareness that did not exist previously, and who have invented new social forms that can teach and inform other communities. We're looking for organizations that have done things that can be replicated, that have wide resonance, and demonstrate the choices we have in shaping cultures for the future. My mother would have appreciated that.'"

The Sambhavna Trust in Bhopal, India administers Bhopal People's Health and Documentation Clinic (also known simply as the "Sambhavna Clinic"). This free clinic is run by doctors, scientists, social workers, researchers, and volunteers who combine alternative therapies with Western medicine to treat people who are still suffering from the effects of the Union Carbide gas leak that killed 16,000 people in Bhopal in 1984.

People continue to die every day from symptoms of the gas leak, says Sathyu Sarangi, an engineer turned activist who helped found the clinic five years ago and currently serves as its managing trustee. Sarangi, a tall man with a beard and hair down to his waist, looks more like a WTO protester than a health clinic manager. In fact, he's both. I spoke with him in February when he came to the US to speak at the World Economic Forum in New York and later at a conference in California on ecological medicine.

very obvious that modern medicine wasn't working for all the health problems," says Sarangi. "Official research showed that the number dead and those with exposure-related illnesses had actually gone up in the years subsequent to the disaster. There were manifestations of 'new' diseases such as tuberculosis, cancers, reproductive problems among the young survivors. Meanwhile, government hospitals—huge buildings built with US\$20 million—had no treatment protocol for exposure and no means to monitor the effect of therapies."

So the Sambhavna clinic developed its own treatment methods. But it hasn't been easy. The first clinics Sarangi tried to open in the years immediately after the disaster were raided by the police and their documents confiscated. According to Sarangi, the government was discouraging independent health-care initiatives and siding with Union Carbide (an American corporation) out of fear of "jeopardizing the investment climate." It took more than a decade before the government would permit a clinic to be opened.

Sambhavna, which means "possibility" in Hindi, is housed in a two-story building that "doesn't look like a hospital or a clinic," says Sarangi. Since the clinic uses plain water instead of biocidal synthetics for cleaning, "it doesn't smell like a hospital or a clinic either. People are more comfortable."

Volunteers helped renovate the building. Potted flowering plants decorate the rooftop terraces. Fruit trees



Graffiti near the former Union Carbide plant.

According to official reports, half a million people who were exposed to toxic gases in Bhopal have poison circulating in their bloodstreams. The Sambhavna clinic sees as many as 110 people a day suffering from damage to their internal organs, diminished vision, breathlessness, persistent coughs, menstrual irregularities, fatigue, depression, anxiety, and a host of other painful disorders.

"Right from the beginning it was

with benches underneath surround the grounds. Patients practice yoga in a spacious lean-to on a terrace with walls decorated by the paintings of children. The first floor has a room for ayurvedic massage and a library where information, documents, and articles related to the gas accident are readily available to the survivors.

There is a space for staff to prepare over sixty ayurvedic herbal medicines, using more than eighty herbal ingredients gathered or purchased locally. There are three cubicles for doctors, a computer room, a pathology laboratory and a facility for regular cervical screening, pap smears, and treatments of cervical cancer. Sambhavna is the only facility in the city to conduct regular pap smears.

Says Sarangi: "People have broken down in tears. They tell us 'no doctors have treated us the way you have.' They bring us flowers, sweets, things they make at home for everyone."

The clinic has survived mainly as a result of appeals for donations in national and international newspapers. They have received grants and donations from "thousands of people around the world." Sambhavna does not accept any money from corporations.

"We don't take money from corporations because we feel they are responsible for most of the ill health and misery and death in the world," says Sarangi. "Why would we want to make them look like angels, when they are really ogres?"

When money was short and medical equipment was needed, some of the staff gave up their salaries in order to purchase supplies. Until enough money came in, other staff

members volunteered to feed those who went without pay.

Doctors have also volunteered their services. After finishing her residency in community and family practice, Dr. Jaysi Chander spent a year volunteering at the clinic.

"One of the most memorable and poignant moments for me," she says, "was when an elderly Muslim widow living in a slum in Bhopal offered a garland of flowers to me as a sign of her appreciation for the medical care I had offered her. She prayed for my good health and I for hers. Another



Union Carbide's abandoned factory. In December of 1984, a tank containing methyl isocyanate ruptured, sending poisonous gas across the city and killing more than 16,000 people. Half a million people who were exposed to the gas continue to have poison circulating in their bloodstreams.

elderly man wrote letters of gratitude that brought tears to my father's eyes."

In addition to alternative therapies, the clinic practices an alternative form of organization. Instead of a traditional hierarchy among the staff, the clinic functions on a collective-management model. Each of the twenty-one staff members has equal input regarding all decisions and equal responsibility for implementing them. They meet once a week, and every two months elect a coordinator from among themselves to share collective responsibilities with the managing trustee. The ratio of the maximum salary (US\$180 per month) to the minimum salary (US\$57) is barely more than three to one. Almost half of the staff are survivors of the accident. Eight are women, nine are under thir-

ty years old, and four are above forty. Half have been working at the clinic since it opened.

An International Advisory Group provides professional support to the clinic as well as serving as a link for fundraising in other countries.

Gary Cohen, a Boston-based writer and activist and co-coordinator of Health Care Without Harm, a group that works to reform health-care industry environmental practices, has worked with Union Carbide gas leak victims for years. "At the end of the day, this clinic really represents the triumph of memory over forgetfulness," he says. "There's a profound way that both Union Carbide and the Indian government want to erase the memory of Bhopal because it's an uncomfortable embodiment of the worst abuses of globalization. The clinic is a powerful symbol of people being empowered to defend and heal themselves."

The clinic conducts health surveys and continues to monitor exposure-related deaths. Trained researchers use a questionnaire to conduct "verbal autopsies." The researcher interviews a family of the deceased to find out if he or she died as a result of the gas accident. The information is documented and used to determine the cause of death. So far interviews have been completed in sixty-nine cases, and the gas leak identified as the cause of death in fifty-two of them.

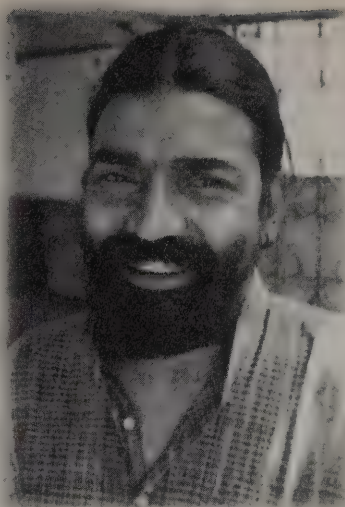
Sambhavna has also created "People's Health Committees" in four communities. Through educational campaigns and meetings, the committees take responsibility for identifying individuals in need of medical attention and counseling regarding treatment.

"We would like to involve the community more," says Sarangi. "Our focus shouldn't be dependent on professionals. The research has to be simplified so people are not just subjects, but are involved too."

The clinic continues to work on behalf of the survivors to pressure the Indian government and Union Carbide (which has since merged with Dow Chemical to create the largest chemical company in the world) to pay for their current medical care. In 1989, as part of a court settlement, Union Carbide paid US\$470 million on the condition that it could not be held liable in any future criminal or civil proceedings, according to PANUPS (Pesticide Action Network Updates Service). The Indian government was responsible for dispensing the funds. As of June 2001, 90 percent of the death settlements had been for US\$550, the minimum amount allowed by Indian federal regulations.

"In many cases, this is far from enough to pay off initial debts for medical treatments and funeral services," says PANUPS. An estimated \$240 million of the Union Carbide settlement remains in the hands of the Indian government. Meanwhile, the Union Carbide factory closed down.

"By all accounts the poisoned night of December '84 is far from over in Bhopal." Sarangi says. "I am happy that, along with the survivors, we at



Sathy Sarangi, managing trustee of Sambhavna Clinic.

Sambhavna refuse to go silently into this night. We have lit a lamp and continue to curse the darkness." —EP

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The staff at Sambhavna Clinic. They continue to see up to 110 survivors of the gas leak every day.

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EAT LOCALLY, ACT GLOBALLY



Beyond Beef

Jeremy Rifkin
1992, 353 pp.
\$14.95
Dutton

Jeremy Rifkin's book is now a decade old, but its message grows more urgent with time. Rifkin holds the beef industry responsible for "ecocide, genocide, forced enclosure of land and people and the expropriation of an entire subcontinent for the exclusive benefit of a privileged few." Cattle grazing and the cultivation of crops for cattle feed have fostered desertification, species extinction, watershed destruction, and even global warming, he says. Almost half the fresh water developed in the United States goes to grow feed for cattle and other livestock. Rifkin's copious statistics don't mention it, but in drought-prone California more water is used for cows than for people.

Changing Diets and Remaking Food Systems

Fast Food Nation

The Dark Side of the All-American Meal

Eric Schlosser

2001; 356 pp.

\$13.95

Houghton Mifflin Company

If you are feeling hungry for some fast food info before you pick up Fast Food Nation, you'll feel stuffed after putting it down. It's a better wake-up call than food poisoning. Schlosser doesn't rant or preach. He just presents fact after fact—comprehensively, intelligently, and meticulously researched—about the history, politics, economics, and culture of the fast food industry.

Schlosser gets out of the way and leaves room for voices and stories that are seldom heard—high-school dropouts who started fast food empires with a hamburger cart and a couple of dollars, immigrant meatpackers working in horrifying conditions; sophisticated flavorists whose secret potions create the flavors of fast food; the dying breed of old-time cattle ranchers and potato farmers being bought out by multinational corporations; the children who are running restaurants while working long hours with minimum pay and little training. Schlosser reveals how a culture is created and then reflected by the food it eats.
—EP

“An estimated one out of every eight workers in the United States has at some point been employed by McDonald's. The company annually hires about one million people, more than any other American organization, public or private. McDonald's is the nation's largest purchaser of beef, pork, and potatoes—and the second largest purchaser of chicken. The McDonald's Corporation is the largest owner of retail property in the world. Indeed, the company earns the majority of its profits not from selling food but from collecting rent.

“On the kill floor, what I see no longer unfolds in a logical manner. It's one strange

image after another. A worker with a power saw slices cattle into halves as though they were two-by-fours, and then the halves swing by me into the cooler....Dozens of cattle, stripped of their skins, dangle on chains from their hind legs. My host stops and asks how I feel, if I want to go any further. This is where some people get sick. I feel fine, determined to see the whole process, the world that's been deliberately hidden. The kill floor is hot and humid. It stinks of



FAST FOOD NATION

manure. Cattle have a body temperature of about 101 degrees, and there are a lot of them in the room. Carcasses swing so fast along the rail that you have to keep an eye on them constantly, dodge them, watch your step, or one will slam you and throw you onto the bloody concrete floor. It happens to workers all the time.

“In 1960, the typical American ate eighty-one pounds of fresh potatoes and about four pounds of frozen french fries. Today the typical American eats about forty-nine pounds of fresh potatoes every year—and more than thirty pounds of frozen french fries. Ninety percent of those fries are purchased at fast food restaurants....Out of every \$1.50 spent on a large order of fries at a fast food restaurant, perhaps 2 cents goes to the farmer who grew the potatoes.

Rifkin indicts the packing industry, the "sociology of fat," cattle-inspired "ecological colonialism," the "psychology of beef," and even meat-driven "gender hierarchies." It's no surprise when Rifkin ultimately labels the beef industry "cold evil."

Rifkin's polemical diatribe is heavy-handed and one-sided, but there is no arguing with its fundamental premise: eating beef carries a very high price. One simple statistic sums it all up: a third of the world's grain harvest is used to feed cattle and other livestock while nearly a billion people

remain malnourished. —DB

“The transformation of the American plains from a pristine range to a commercial pastureland in less than a generation is, without a doubt, one of the greatest business transactions in world history. Few Americans are aware that the west was won for cattle and that western ranchers conspired with British banking interests to colonize nearly 40 percent of the landmass of the United States for the creation of a powerful Euro-American cattle industry.

“There are over one billion cows alive today. They are grazing on six continents. A quarter of the earth's landmass is used as pasture for cattle and other livestock...nearly 29 percent of the landmass of the United States is currently used as grazing land, primarily to feed cattle.

Hope's Edge The Next Diet for a Small Planet

Frances Moore Lappé and Anna Lappé
2002; 448 pp.
\$26.95
Jeremy P. Tarcher/Putnam

Nearly twenty years ago, Frances Moore Lappé's *Diet for a Small Planet* helped make me a vegetarian, convincing me that the Earth's resources couldn't bear the strain of feeding everyone on a meat-based diet, and that I could meet my body's protein needs without all that meat. Though she wanted to influence readers' eating, she was dismayed, as she wrote later, that the personal had not become political: "Was I helping people to close in on themselves, on their own bodies' needs, instead of using the information to help them relate to global needs?" (If the culture had taken *Diet's* lessons to heart, a book such as *Beyond Beef*, page 36, would have been superfluous).

Hope's Edge takes off where *Diet* left off. It recounts a nine-country odyssey that Frances and her daughter Anna make to outposts of hope—people and organizations that have gone beyond personal choices or waiting for governments and large institutions to act, and simply started making a difference. From Berkeley's Food Systems Project (see page 38) to the Movimento dos Trabalhadores Rurais Sem Terra (MST) in Brazil, Kenya's Green Belt movement, and alliances of farmers and consumers resisting industrial agriculture in Europe, the Lappés find people who are reshaping the systems that perpetuate hunger, loss of diversity, and hopelessness. Their lessons—successes and obstacles—can apply to local activists everywhere. She hasn't given up on readers' personal choices either; the book is spiced throughout with recipes from leading whole-foods and vegetarian chefs. —MKS

"But even with an elected government and a constitution with specific provisions for land reform, many [in Brazil] felt land redistribution was proceeding too slowly, according to João Pedro. So the MST, along with other groups working with the landless, decided to speed up the process....

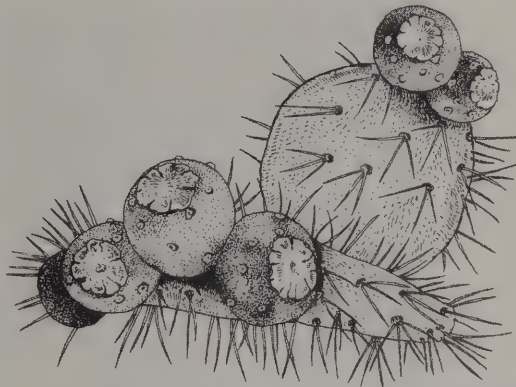
Its strategy? Analyze which idle lands offer the most productive promise, bring landless people together, and—under cover of night—occupy the land. Using the old possession-is-nine-tenths-of-the-law thinking, MST members build temporary shelters and start working the land. At the same time, the MST presses the government to transfer title of the formerly idle land to the formerly landless occupiers.

The strategy seems to be working....The government settled almost 400,000 families between

1995 and 1999, nearly twice as many as all of the families who acquired land in the entire thirty years since the first land-reform law.

"On Earth Day 1977, Wangari, then thirty-seven, planted her first trees....Today, the village movement she launched...boasts 6,000 registered groups throughout Kenya, all with their own tree nurseries.

Wangari and her movement have inspired tens of thousands of women in villages throughout the country to see themselves as citizens, and that has allowed them to perceive their country's forests as a public good, one they have a right and duty to protect from private land-grabbers. It has given women the strength to question everything from their husbands' control to President Daniel arap Moi's rule.



Prickly pears, from *Coming Home to Eat*.

Coming Home to Eat The Politics and Pleasures of Local Foods

Gary Paul Nabhan
2002; 330 pp.
\$24.95
Norton

In the face of a globalized food economy, neotraceuticals, transgenic foods, and the disconnect between our meals and their sources, says the author, "we have become a nation of food worriers more than food savorers." Rather than write a jeremiad bemoaning this condition, he sets out on a "modest experiment": to live for a year mostly on native flora and fauna he can raise or gather within 250 miles of his Arizona home.

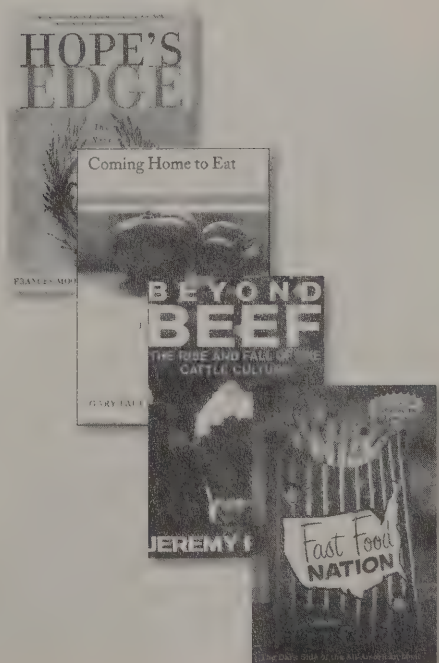
His experiment is more an extended sacrament than a test to be passed. Some of his efforts succeed beyond expectations; some fail in hilarious fiascoes. Along the way, he connects with native people who carry on traditions around desert foods to be found in no supermarkets—and reintroduces some other native people to their own ancestors' foodstuffs. He's attentive to the connection between food choices, global food issues, and threats to

cultural and biological diversity, but his final word is both more simple and more profound: "I love the flavor of where I live, and all the plants and creatures I live with." —MKS

"Close your eyes," I told the uninitiated who came out to join us. "Imagine that someone put a delicate vegetable the size of a marble into your mouth. You could not put your finger on it exactly, but its taste reminded you of asparagus tips, artichoke hearts, and capers. You tasted an initial lemony burst as your teeth and tongue crushed its tenderness, followed by a lingering smokiness of mesquite, perhaps because the vegetable had been steamed over mesquite coals in a *horno*, or a roasting pit. You open your eyes and see a bowlful of the vegetable you had savored, spines and all, sitting menacingly on the table before you."

I was describing cholla cactus flower buds—a little-known delicacy of my Tohono O'odham neighbors and their Akimel O'odham kin in the Phoenix area.

"The real bottleneck to the revival of native, locally grown food is a cultural—or more precisely, a spiritual—dilemma. If we no longer believe that the earth is sacred, or that we are blessed by the bounty around us, or that we have a caretaking responsibility given to us by the Creator—Yahweh, Earth Maker, Gaia, Tata Dios, Cave Bear, Raven, or whatever you care to call him or her—then it does not really matter to most folks how much ecological and cultural damage is done by the way we eat....Until we stop craving to be somewhere else and someone else other than animals whose very cells are constituted from the place on earth we love most, then there is little reason to care about the fate of native foods, family farms, or healthy landscapes and communities.





a food revolution

by Michael K. Stone

in Berkeley

Fighting malnutrition and disease, teaching ecological literacy, and giving hope to family farmers begins with kids growing their own food.

In Berkeley, the Center for Ecoliteracy (CEL) is cooking up a revolution. The recipe includes food, nutrition, parents, students, organic farmers, urban gardeners, and school district and city policies. In just three years, CEL's Food Systems Project (FSP) has served as a catalyst to coalesce and organize a coalition to:

- create the nation's first districtwide school food policy;
- establish gardens on every campus;
- develop a city food policy;
- "reinvent" the school district's food service;
- inspire a curriculum integrating classrooms with hands-on gardening and cooking instruction;
- help lead a successful campaign—83 percent "yes" votes—for a bond measure that will fund school kitchen and cafeteria construction.



UNLESS OTHERWISE NOTED, PHOTOGRAPHS ARE BY JAMES TYLER/BRIGHT MOMENTS! AND THE CENTER FOR ECOLITERACY.

ZENOBIA BARLOW

This revolution has generated national publicity. After passage of the school food policy, says Erica Peng, then FSP's garden coordinator, "CNN, CBS, they all descended on us. Did they know we were only one office with three people?"

CEL's achievements are noteworthy enough to be featured in Frances Moore Lappé and Anna Lappé's *Hope's Edge* (see page 36) as one of the good news stories they discovered in their worldwide search for projects that give hope.

What the CNN stories and the Lappés didn't describe is the years of groundwork that preceded the accomplishments, and the strategies tried and lessons learned: How can people affect complex systems like food and schools? Is the FSP an "only in Berkeley" story? Can it teach others wanting to create change in their towns and cities?

Says Zenobia Barlow, CEL's executive director, "There is a false assumption that you can just walk in and start changing systems. Instead, you need first to weave the web of relationships. You have to work from the school to the district; from the classroom teacher to the school board. The FSP's successes can be traced to the fact that we were able to build our understanding of the dynamics of living systems—the importance of time, relationships, and multiple levels of scale—into the project from the start."

CEL was founded in 1995 by physicist Fritjof Capra (*The Tao of Physics, The Web of Life*), Zenobia Barlow, and philanthropist and businessman Peter Buckley, as a successor to the Elmwood Institute, an ecological think tank and international network of scholars and activists applying ecological, whole-systems principles to business and education.

CEL (which focuses on K–12 education) may be unusual among foundations¹ in the degree to which its grant giving, programs, and day-to-day operations inhere in a clear set of fundamentals, all of them manifestations of whole-systems approaches. Chief among them are "solving for pattern," "ecological literacy," and what CEL calls "the Four Societies Process."

SOLVING FOR PATTERN

Farmer/poet/philosopher Wendell Berry coined "solving for pattern" to distinguish "solutions" that worsen the problems they are intended to solve from solutions that "cause a ramifying series of

¹ CEL is also unusual in the degree to which it both gives grants and operates programs for which it receives grants. Among the Food Systems Project's funders are the Arkay Foundation, the California Endowment, the Clarence E. Heller Charitable Foundation, the Columbia Foundation, the East Bay Community Foundation, the Fred Gellert Family Foundation, the Greenville Foundation, and the Hunt Foundation.

solutions." A bad solution solves for a single purpose. It acts destructively on the patterns that contain it. A good solution addresses the interlocking pattern in which it is embedded. "Unless the people solving parts of the problem are having conversations with each other," says Zenobia, "the work they do won't last."

Take some seemingly disparate facts: The percentage of overweight children and youth in the US has doubled in the past thirty years. The federal school lunch program provides school districts with just \$2 for a free lunch for the poorest children. Diabetes rates are expected to double in the next twenty years. Food service workers are often the lowest paid and least respected on campus. Tons of uneaten school lunches are trucked to landfills every day. Ninety-one percent of children ages 6 to 11 are not eating recommended amounts of fruits and vegetables. Eighty-five percent of at-risk American farms are on the fringes of urban areas. A quarter of Americans eat at least one meal a day from a fast food joint. Heavy attention to standardized testing has not perceptibly improved children's performance in schools.

Community health...behavioral and academic problems...low quality school lunches...junk food...failing family farms...solid waste management. Do they form a pattern that can be solved for?

ECOLOGICAL LITERACY

Says Fritjof Capra, "The first step to creating sustainable communities is understanding the principles of organization that ecosystems have developed to sustain the web of life. We call that understanding 'ecoliteracy,' from the title of a book by David Orr [another CEL board member]."

According to Fritjof, thinking systemically requires several shifts in thinking: *from the parts to the whole; from objects to relationships; from objective knowledge to contextual knowledge; from contents to patterns; from quantity to quality; from hierarchies to networks; from structure to process.*

Understanding these shifts is basic to the curriculum CEL proposes. But "curriculum" to CEL is much more than courses, facts, and concepts to grasp. It is about the totality of a student's experiences, contexts, and relationships.

People at CEL talk a lot about the "hidden curriculum," what students actually learn about the



Right:
Alice Waters
and friend
celebrate the
bounty of
the Edible
Schoolyard.

world and their place in it—including the unintended lessons the school teaches. Which offers the longer-lasting lesson—the teacher's lecture on nutrition, or the soda machine outside the classroom? The food pyramid chart on the wall, or the PTA selling junk food to fund school activities?

CEL calls its third fundamental “the Four Societies process.” It grows out of the work of Jeannette Armstrong, an Okanagan writer, filmmaker, teacher and political activist from British Columbia. She has helped CEL adapt a process her people call *En'owkin*. The Okanagan people use this process to nurture voluntary cooperation when the community is faced with a decision. An elder asks each member of the group to contribute new information, without debate or attempts at resolution, then asks how people and other things might be affected.

The process challenges the group to suggest directions that are mindful of each area of concern put forward, usually in the form of questions put to the “elders,” the “mothers,” the “fathers,” and the “youth.” In CEL's formula-



tion, “youth” translates as “the vision society,” “fathers” as “the action society,” “mothers” as “the relationship society,” and “elders” as “the tradition society” or “the land society.” CEL recognizes that any organization or process includes members of all four, even if they don't recognize themselves as such.

The Edible Schoolyard at Berkeley's Martin Luther King, Jr. Middle School provided the initial chance to address food in a whole-systems way. CEL had already funded isolated garden and food projects in schools, but this project offered the opportunity to immerse children in hands-on work in the natural world and to pursue the Center's ultimate goal of changing schools and school systems from the inside out.

Neil Smith, King School's principal, planted the Edible Schoolyard's first seeds in 1994 with a call to Alice Waters, the charismatic, visionary chef and founder of Berkeley's world-famed Chez Panisse restaurant. Neil had heard a radio interview in which Alice described her dismay at driving past a run-down, graffiti-marred King School on her way to and from work.

When the principal called, she

says, “I imagine that he had in mind my helping to beautify the school with a garden. But as we walked around the campus, I immediately began to get ideas. There are gardens in lots of schools. There are kitchens. There are cafeterias. But there aren't gardens and kitchens and cafeterias that are of a piece....I started to get the idea for an ecological curriculum run as a school lunch program that could transform education.”

Alice and Neil represent almost classic examples of the “vision society” and the “action society.” She already imagined a food-based curriculum as the first step toward programs in every school in the country. He was still trying to figure out how to overcome the obstacles just to building a garden.

Even with the inspiration of a dynamo like Alice Waters and a supportive principal, the garden idea germinated slowly—an important lesson. The following fall Beebo Turman, a parent, stepped forward. Beebo, Neil, and Alice were joined by two science teachers, Beth Sonnenberg and Phoebe Tanner. Finally, two years after Neil and Alice first talked, staff and volunteers tore up the asphalt and planted their first crop: bell beans, fenugreek, crimson clover, oats, and vetches to cleanse and improve the soil.

CEL awarded the Edible Schoolyard a grant that allowed it to hire staff, and has remained a major supporter since. Says Fritjof, “Gardens and food systems were an ideal project for CEL. We realized students can learn the facts without that affecting their lives. You need to instill a certain passion for nature. You can't do that in the classroom alone. By growing and eating vegetables, they learn to see themselves as part of natural cycles. Our health depends on the health of our food, which depends on the health of the soil. Children learn that we are embedded in the soil. They see that we are not apart from nature, but a part of it, and that therefore we must play our part.”

By growing vegetables themselves, and then eating them, children learn to see themselves as part of natural cycles. We all have a vital need to eat, breathe, and drink. Our health depends on the health of our food, which depends on the health of the soil. Children learn that we are embedded in the soil. —Fritjof Capra

“CEL funded aspects that I didn’t even see,” says Alice. “While I was focused on bringing in outside people and taking the weight off teachers, Zenobia was focused on making the teachers more involved.” Says Sandy Neumann, a former principal who is CEL’s program officer for education, “The teacher needs to share the students’ experience.”

IN THE GARDEN, WE WORK

“The garden is hands-on,” says Beth Sonnenberg. “We work. There’s no reason I should waste garden time on a little lecture on the beauty of compost, when they can be out turning compost themselves.”

Along the way, students are encouraged to sample the garden’s output. “The first place they always go is the raspberries,” says Phoebe. “But then it’s on to the beans or the mustard greens. One year we had purple string beans. They never got to the kitchen, because kids ate them right off the vine.”

Says Peter Buckley, “One of my favorite experiences is walking through the Edible Schoolyard garden and seeing the kids munching on the food like little deer. They know, and will eat, what tastes good.” Phoebe adds, “I had one African-American kid whose mother called him a ‘picky eater.’ Over the year, that took on a new meaning, because he was picking, and eating, everything in the garden.”

Students in the garden cooperate without being asked. The changed context breaks assumptions about how teachers and students relate. Phoebe tells a story: “I was working with one of my students. We noticed that the wood chips we were spreading were steaming. ‘Why is that?’ I asked. ‘Because of bacteria in the wood,’ he answered. Then he said, ‘Miss Tanner, let’s have a conversation.’ I had thought we *were* having a conversation, but for him it was still a lesson. ‘Who’s your hero in life?’ he

asked. I told him, ‘Rachel Carson,’ and asked who his was. A couple of others joined us. Everyone shared, and really listened to each other. That doesn’t happen in a classroom.”

IN THE KITCHEN

Most King School classes incorporate the kitchen in their schedule. Esther Cook has been the Edible Schoolyard’s kitchen teacher and manager since the kitchen opened. At first, she says, teachers looked at the kitchen and garden sessions as “time away from the curriculum. Now they’re seeing ways to make the lessons part of the curriculum.”

A Spanish class tries Venezuelan cooking, speaking in Spanish while cooking. A math class costs out the ingredients of a meal, learning that good food can be served on a limited

this because it’s good for you,” but with “Try this and see if it doesn’t taste better.” Alice Waters talks about “seducing” people with food. It’s the not-so-secret strategy of her delicious revolution.

As impressive as King School’s Edible Schoolyard is, CEL believes that the minimum scale for lasting systemic change is the school district, where decisions from staffing assignments to procurement procedures to budget and facilities priorities are made. Ideally, you should work simultaneously in schools, in districts, and in the communities in which districts are nested.

COMMUNITY

About this time, Zenobia began to read about a growing “community



Kindergarten teacher and primary garden coordinator Shari Graham teaching a garden class at Mill Valley’s Park School, a member of CEL’s network of leadership schools.

budget (literally, a take-home lesson). For a drama class, Esther gives groups of students the same ingredients and invites them to “improv” different recipes.

Setting the table with a tablecloth and flowers, and sitting down to eat together, even for twenty minutes, creates a different model of eating and relating for children used to inhaling meals on the run. Classes teach about fresh, nutritious food, not with “Eat

food security” movement reaching beyond piecemeal hunger intervention to address systems and permit communities to meet their own needs for nutritious, safe, acceptable food. She went to Alice Waters, the Berkeley Community Garden Collaborative, and other groups CEL was funding, and said, “There’s enough going on here that if we put the parts together into some larger pattern, we could be eligible for funding from larger



funders.” Zenobia calls this network-building strategy “funding the dots, and then connecting the dots.”

By 1998, CEL had funded several school gardens and a number of community food and garden organizations, and helped underwrite and design a “Vision of a Garden in Every School” conference, in which Berkeley Superintendent of Schools Jack McLaughlin participated.

About a week after the conference, Jack was visited by “a real angry parent.” His specific objection was the absence of lactose-free lunch options at his son’s school, but his more general message was “You’re serving my kid crap.” After listening to his profanity-laced tirade, Jack escorted him from his office. “But after he left,” says Jack (perhaps influenced by the gardens conference), “I realized that the guy really did have a point. I invited him to come back and meet with the board president and me. He was shocked.” Jack also invited Tom Bates, a friend who had served in the California State Assembly for twenty years.

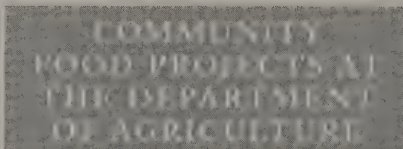
One meeting led to others. Jack asked the district’s food services man-

“I had one African-American kid whose mother called him a ‘picky eater.’ Over the year, that took on a new meaning, because he was picking, and eating, everything in the garden.”
—Teacher Phoebe Tanner

ager to attend. More parents joined them. The “Superintendent’s Group” began to meet monthly. Jack offered his conference room, and came to all the meetings, giving the group weight and credibility.

Tom Bates moderated the meetings, which began as mostly gripe sessions—venting about the food, Child Nutrition Services, waste, the menus sent home to parents (which contained advertising for movies and video games). “Another lesson,” says Zenobia, “is that it’s a mistake to prematurely cut off complaining. You can silence the grippers, but they’ll come back later and undermine the effort.” Tom allowed them to get grievances off their chests before asking, “What do you suggest we do?”

The group started solving for pattern, generating whole-system suggestions from school gardens to cafeteria food to recycling. Zenobia offered them a planning grant to pursue their ideas.



CEL soon found a larger opportunity to simultaneously address the schools, the district and the city.

Zenobia met Janet Brown, a Marin County farmer, community food security activist, and founder of the Marin Food Policy Council. Janet became a

consultant to CEL, and later its program officer for food systems. She discovered a US Department of Agriculture Community Food Projects program developed under Dan Glickman, Bill Clinton’s Agriculture Secretary, that drew on the same place-based, systems-based premises as CEL’s work.

The USDA, though commonly assumed to be biased toward agribusiness, is a complex bureaucracy with more opportunities for experimentation than many people think. In 1996, despite cutbacks elsewhere in the Food Stamp Program, community food security champions managed to pry away funding (\$2.5 million by 1998) for the Community Food Projects program.

CEL submitted a proposal as lead agency for a network of seventeen organizations and individuals, including BUSD, the Chez Panisse Foundation, Berkeley Youth Advocates, the Berkeley Community Gardens Collaborative, the Berkeley Emergency Food Project, and the schools of business and public health at UC Berkeley. Many of the network’s members had already been funded by CEL for three to five years, as had many of the nearly twenty agencies that wrote letters of support. *It was time to connect the dots.*

USDA consultant Zy Weinberg calls the proposal “visionary...one of the best” of the 104 proposals funded so far by the program. He was impressed by the broad community participation; the superintendent’s commitment; ambitious goals for using locally grown food; big-picture systems change combined with children learning about nutrition by eating food they had grown themselves.

The USDA awarded a three-year grant that permitted hiring a coordinator and a half-time garden coordinator. CEL found funds from the Arkay Foundation and East Bay Community Foundation to hire Tom Bates as a half-time “consultant/project director,” rent an office, and pay other expenses. FSP was born.



Zenobia Barlow, executive director of the Center for Ecoliteracy.



Sampling an avocado during an FSP-led School to Farm Field Studies Program trip to the Berkeley Farmers' Market.

THE FOOD SYSTEMS PROJECT

FSP began with gardens, eventually establishing one in every BUSD school. CEL considers gardens to be an almost necessary first step toward a food systems curriculum. Though the best programs, such as the Edible Schoolyard, interact heavily with their schools' curricula, gardens can be introduced at levels requiring less commitment or resources. Some BUSD schools already had gardens, many supported by CEL.

On the other hand, much of the major transformation of the BUSD food service promised in the USDA proposal was slow work.

"Compared with arson at the high school, vandalism, rape, immigration issues, or the economy, food is not in the top ten," says Zenobia. "When we first started talking about fresh, nutritious food in the schools, people would say, 'Oh, please.' It seemed like some kind of effete, let-them-eat-arugula Berkeley approach." In fact, school food systems reflect much bigger food trends, themselves part of even bigger economic trends toward centralization, industrialization, standardization, and globalization.

School economics only exacerbated the trend. The National School Lunch

Program entitles children from poor families to free or discounted meals, but subsidies have remained largely unchanged for years. The USDA also supplies surplus commodities, giving schools considerable incentive to use products such as cheese or peanut butter, without regard to nutritional value.

Meanwhile, school food services are expected to operate in the black or even to generate a profit—one of a district's few unencumbered revenue sources. Increasingly, school districts are opting to replace labor- and facility-intensive food preparation with highly processed or frozen heat-and-serve entrees assembled at central facilities and trucked to campuses. Some districts have gotten out of food preparation altogether, contracting with megacorporations such as Marriott, Pizza Hut, or McDonald's.

On some campuses, organizations such as the PTA sell pizza and candy to help underwrite computer labs and music and art programs. Soft drink companies dangle lucrative offers. Jack McLaughlin says that he was offered, and rejected, \$100,000, on top of a percentage of sales, to sign a Coca-Cola contract.

"Our tax dollars," Zenobia Barlow says, "are buying a high-fat, high-salt, high-octane caffeine, fast-food diet

for the nation's school children that is, in turn, producing a multi-billion dollar public health problem."

Moreover, in spite of a near-obsession with "accountability" for students' academic performances, schools are failing to act as if they recognize a connection between what children eat and how well they do in class. It's not as if that connection is news. In 1941, the US Surgeon General, Thomas Paran, said:

We are wasting money trying to educate children with half-starved bodies. They cannot absorb teaching. They hold back classes, require extra time of teachers, and repeat grades. This is expensive stupidity, but its immediate cost to our educational system is nothing compared to the ultimate cost to the nation.

A FOOD POLICY FOR THE SCHOOL DISTRICT

While FSP was launching, Jack McLaughlin proposed that Tom Bates hold hearings to develop a proposal for a district food policy. "We were working to create a policy that could outlast particular individuals like Jack and myself," Tom says.



Phil Dedlow, a Chez Panisse chef, teaching a cooking class at Arts Magnet Elementary School in Berkeley. Phil is one of several chefs from prestigious local restaurants participating in CEL's efforts to introduce children to the joys of fresh, healthy food.

The process built on the work of the "Superintendent's Group." Controversy arose when some participants wanted to require vegetarian entrées and purchase of organic food, and to ban additives and processes such as bovine growth hormones, irradiation, and genetically modified foods. Other committee members opposed them, fearful that they might damage the policy's credibility by demanding unachievable goals. They compromised, including the goals but tempering them with qualifiers such as "to the maximum extent possible." The policy was passed unanimously by the school board in August 1999. Among its goals:

- Ensure that no student in Berkeley is hungry.
- Ensure that a healthy and nutritious breakfast, lunch and after school snack is available to every student at every school....
- Shift from food-based menu planning to nutrient-based planning.
- [Provide] nutritious, fresh, tasty, locally grown food that reflects Berkeley's cultural diversity.
- Ensure that the food served shall be organic to the maximum extent possible....
- Maximize reduction of waste by

recycling, reusing, composting and purchasing recycled products....

Twenty years in the legislature had taught Tom that policies without enforcement mechanisms are hollow. Therefore, the policy required the food service to report annually directly to the board of education. It also established a Child Nutrition Advisory Committee (CNAC) to oversee progress on the policy's goals.



Establishing CNAC completed the process of formalizing the ad hoc Superintendent's Group. "The policy gave us standing and leverage," says Beebo Turman, who became chair of the menu committee. "Principals who used to ignore me couldn't anymore." The policy also raised reformers' aspirations. "I just wanted to see menus change," Beebo remembers. "I didn't expect a revolution in food service. By passing the policy, they let us in the back door."

The Menu Committee replaced corporate advertising on menus with a nutrition message. They targeted what they considered the worst food service entrees. ("For me," says Beebo, "that's frozen chicken nuggets and

tater tots, shipped frozen from Texas.")

Understanding food service operations "was like peeling an onion," says CNAC chair Eric Weaver. "We had to begin by figuring out what questions to ask," adds Janet Brown, "such as who is making procurement decisions, how much profit is being made on snack foods, and whose profit is it?" They discovered that no one—not the district's business manager, the superintendent, or the school board—had ever looked carefully at, or really understood, food service operations. The food service had no accounting software of its own, nor any formal inventory process. They discovered the food service had accumulated a nearly million-dollar surplus, at a time when there were no burners or knobs on stoves in the central kitchen.

FSP discovered substantial obstacles to purchasing directly from local farmers. The food service had devolved so far into a heat-and-serve model that it had neither facilities nor trained chefs to prepare meals from fresh ingredients. Although fruits might be bought more cheaply at the farmers' market, the food service was geared to handling "units" of fruit in standardized sizes.

Large-scale replacement of food with locally grown, healthy alternatives wasn't an immediate prospect. "So we developed a strategy of mimicking traditional items with similar but more healthful alternatives," says Jered Lawson, FSP's former program coordinator. "FSP took on research that the food service should probably have conducted itself, but wasn't prepared to." FSP staff identified Newman's Own organic nacho chips as an acceptable alternative to Doritos, negotiating chargebacks and discounts from the manufacturer and distributor in order to afford superior chips with lower cholesterol and fewer preservatives. (FSP also experimented for a time with rice cakes; the kids liked them at first, but later started using them as Frisbees).

Working through a local farmer who bottles his own apple juice, FSP

obtained bottled juice for \$.18 a serving, versus the \$.54 being paid for individual packages. Through such substitutions, FSP radically increased the fresh fruit offered in snacks.

In 1999, FSP heard about a successful program in Santa Monica featuring salad bars with fresh produce from local farmers' markets, and organized a field trip for FSP staff and food service officials.

The first salad bar, featuring food bought at the Berkeley Farmers' Market, opened in May 2000. Even after the novelty wore off, about a third of the children eating lunch, along with teachers and others, continued to choose the salad bar. Overall meal participation increased by about 20 percent. Three BUSD schools now have salad bars.

The farmers' market connection feeds into an FSP School to Farm Field Studies Program, directed by Melanie Okamoto, that takes students to farms, community gardens, and the farmers' market. It lifts the garden lessons to a larger scale, notes Fritjof Capra, "so students can see how systems work in the adult world." Lessons take on a personal note, putting a farmer's face on the food.

"Dear Farmer Al," wrote a student after a farm visit,

I really enjoyed the trip to your farm. The best part for me was when we picked the cherries. I picked them for my grandmother in the hospital and she loved them, she didn't share them with the rest of the family. . . .

At first I thought organic meant that they didn't come from a grocery store, but now I know it means that the farmer doesn't use pesticides on fruit. Instead you use owls to eat gophers, bees to pollinate the trees, and ladybugs to eat the aphids.

I think it's nice that you don't throw away the bad fruit. Instead you use it to make your jam and tarts. Next time I go to the farmers' market I will buy some jam.



LESSONS LEARNED

Some suggestions for beginning a food systems program:

- Give yourself three years. The gardening metaphor is "double digging," spending the first 18 months turning over the soil before planting.
- Involve as much of your whole community as possible from the start. Think about the Four Societies: Who are the people in the community who represent each of those societies? Does the planning process acknowledge, honor, and include all of them? Pull in those who aren't normally seen, such as food service staff and custodians.
- Anticipate criticism and griping. It's part of the process, not a diversion that must be avoided in order to get on with the process.
- When necessary, work incrementally, taking steps that don't seem like radical departures from the familiar.
- Point to strong examples that say, "It's already been done. We can do it here too."
- Begin with gardens. They work. They break down assumptions about "learning." They offer tangible signs to the community that something is happening. Being with nature, observing the path from seed to table (or, better, the cycle from soil to soil) is the beginning of ecological literacy.
- Free someone (it could be a volunteer) from other responsibilities to oversee garden, scheduling, maintenance, etc. It's too much work to expect a teacher to do on top of a full-time teaching load. Think about who will maintain the garden during breaks when teachers and students are gone.
- Plan to scale up. The scale of change for affecting systems is ultimately the district, not the classroom or even the school.
- Institute a food policy, with a council or committee charged with overseeing it.
- Make use of visible people in the community (an Alice Waters or a Tom Bates) who can give the project visibility and credibility.
- Look to local and regional funders for financial support and connection across a spectrum of agencies. Solving for pattern creates a pattern that people didn't perceive before. There aren't funders who leap off the page of foundation directories indicating an interest in this work; one must put together a patchwork of funders. FSP funding has come from foundations devoted to education, environment, health, sustainable agriculture, economic development, and community-based philanthropy.
- Look to collaborate with as wide a spectrum of people and organizations as possible, but don't assume that they'll give up their own deep agendas.
- Think about a role for third parties (such as the Food Systems Project) who aren't already immersed in maintaining the current system.

Right: Janet Brown is the Center for Ecoliteracy's program officer for food systems, a position found at few other foundations. She's also a farmer, community food activist, and founder of the Marin Food Policy Council.

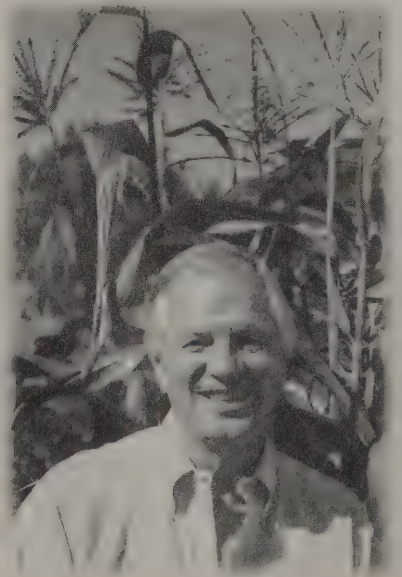
To fund salad bars and other food programs, FSP helped the district apply for funds from the California Nutrition Network for Healthy, Active Families (CNN). BUSD received \$1.2 million between 1999 and 2001. In 2001–2002, eligibility levels were raised, and two Berkeley schools lost their funding. 2002–2003 eligibility may be further restricted; CNN coordinator Erica Peng predicts that half the Berkeley schools receiving grants may not qualify.

The movement toward centralized heat-and-eat food preparation was accelerated after the 1989 earthquake damaged kitchens and cafeterias. Tom Bates, Eric Weaver, and others helped make the case for including kitchen and cafeteria facilities in two bond measures on the November 2000 ballot. Food Policy Council members participated actively in the campaign. Both measures, totaling \$116 million, were approved by 83 percent of the voters, virtually unheard-of majorities.

THE FOOD SYSTEMS PROJECT AS A SMALL BUSINESS

A major goal of CEL's efforts has been changing many assumptions of food services: that the bottom line is everything; that kids will reject food that's good for them; that balancing the bud-

Right: Tom Bates, who represented Berkeley in the California State Assembly for 20 years, served as FSP's project director and coordinated the efforts to draft a food policy for the school district.



get requires selling junk food; that low subsidies and dependence on surplus commodities mean "paying public funds to serve bad food to poor kids," as parents complained to Jack McLaughlin.

But, CEL's Peter Buckley asked, what if the food service were run as a small business? What if it based its strategy on attracting paying customers rather than meeting minimums for reimbursable meals? What if it used all the accounting, planning, procurement, and marketing tools of other successful businesses?

This may be the key to programs succeeding in Berkeley or migrating elsewhere without the heavy infusion of cash provided by CEL and other funders. CEL procured a grant from the California Endowment to develop a business plan during 2002 that will test the thesis that schools can serve appealing, nutritious meals, using food from local farms, and remain economically viable.

CEL has always advocated harnessing the considerable buying power of school districts into a predictable stream (or, better, a river) of income to sustain regional farmers. Berkeley now cooperates with a regional coalition of thirteen districts. Multiply that by all the districts in an area—then add hospitals, elder-care facilities, jails, and other public and private institutions—and sustaining farming as a way of life seems less a dream.

The region's capacity to fulfill that potential remains to be tested, though. When the business plan is completed, its menus, budgets, and other findings will be made available to other districts considering the similar food programs.

THE FOOD SYSTEMS PROJECT AT THREE

FSP is a work in progress. "Bringing change to schools is like a glacier," says Dave Cort, a leader in efforts to bring the project to Marin County. Three years is not long in the life of a glacier. On its own terms, the project



has achieved or made substantial progress on many of its objectives. Only time can measure the ultimate accomplishments of so many programs, policies, and organizations still in their infancy.

CEL hopes that BUSD will assume increasing responsibility for food systems work. Meanwhile, it is looking to migrate its food systems work to nearby counties, beginning with Sonoma, Marin, and Yolo. It wants to test a model based not on subsidies, but on community support and establishing connections between local farms and schools. "It was never our intention," says Zenobia, "just to build a program for poor kids."

The program has experienced difficulty in meeting some of its goals. For instance, the objective of school and community gardens' providing 25 percent of the fresh produce required by Berkeley schools seems to be widely acknowledged as unrealistic.

Increasing participation in breakfast programs, another goal, has also been difficult, as it has been everywhere else in the country. With two schools often sharing the same buses, some students would not arrive in time to eat before class. Teachers resisted beginning classes later, and thus extending the school day, for the sale of accommodating breakfasts.

DOES THE PROGRAM MAKE A DIFFERENCE FOR CHILDREN?

Preliminary data from a study by Michael Murphy of Massachusetts General Hospital and the Harvard Medical School suggests that Berkeley students in integrated programs are learning more about food, systems, and ecology.


Many people, including food service personnel, believe that efforts to improve nutrition are doomed because students are already acculturated, if not addicted, to high-sugar, high-fat, highly processed foods. To test this, students eating breakfast at one Berkeley school were offered a choice between their traditional breakfast (for example, pancakes and syrup) and a bowl of whole grain oatmeal with fruit. "It was one of the most amazing school breakfast things I've ever seen," says Murphy. "I have pictures of eighty kids a day eating oatmeal. Kids will substitute more natural and more nutritious foods if you put the good food out and present it well."

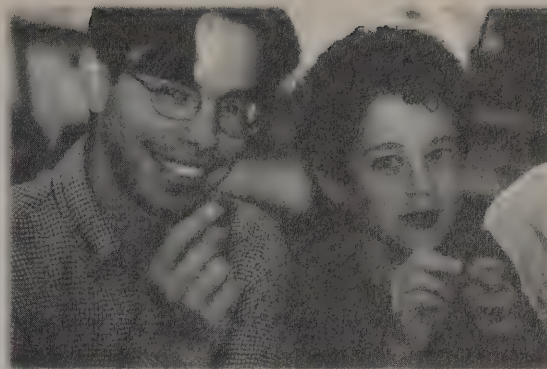
HOW IS THE PROGRAM A MODEL? HOW WELL CAN IT "MIGRATE"?

CEL staff feel that many lessons they have learned can be put to good use by others (see box, page 45).

Programs also migrate in numerous ways. FSP served as a template for Lagunitas (Marin County), which adapted the wording of the BUSD food policy and is attempting to import and adapt Berkeley's garden-classroom-salad bar model. The state has asked CEL to form a network and train six other districts to use its model. Jered Lawson and Tom Bates are moving on to continue food systems work in other places. King School teacher Phoebe Tanner now works with the state Department of Education on a project to match experiential food-based curricula with the

state's core testing standards.

Janet Brown calls eating "an ecological act of unparalleled significance." She says, "We want children to identify eating as a fundamental part of life. Since all life forms 'eat,' this act accounts for the greatest impact of the Earth's resources of any of the life processes"—a nearly perfect vehicle, in other words, for learning and practicing ecological literacy. 



Center for Ecoliteracy curriculum coordinator Juan Carlos Collins joins a student at Malcolm X Elementary School in sampling the fare at the salad bar.



RESOURCES FOR FURTHER INFORMATION

ORGANIZATIONS

THE CENTER FOR ECOLITERACY
2522 San Pablo Avenue
Berkeley, CA 94702
510/845-4595
www.ecoliteracy.org

THE FOOD SYSTEMS PROJECT
2530 San Pablo Avenue, Suite D
Berkeley, CA 94702
510/548-8838
www.foodsystems.org

CALIFORNIA CENTER FOR PUBLIC HEALTH ADVOCACY
PO Box 2309
Davis, CA 95617
530/297-6000
HG@PublicHealthAdvocacy.org

CALIFORNIA NUTRITION NETWORK FOR HEALTHY, ACTIVE FAMILIES
California Department of Health Services
PO Box 942732, MS-662,
Sacramento, CA 94234-7320
916/323-0594
www.ca5aday.com/programs/nutrition/nutrition.htm

"A GARDEN IN EVERY SCHOOL"
Nutrition Services Division,
California Department of Education
721 Capitol Mall
PO Box 944272
Sacramento, CA 95814
916/445-0850 or
www.cde.ca.gov/nsd/nets/g_index.htm

THE CENTER FOR COMMERCIAL-FREE PUBLIC EDUCATION
1714 Franklin St. #100-306
Oakland, CA 94612
510/268-1100
www.commercialfree.org

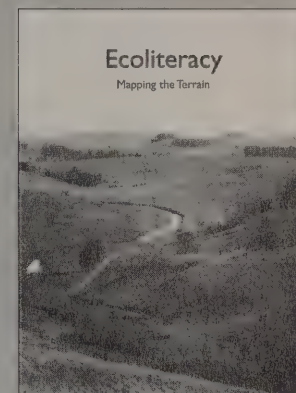
THE CENTER FOR FOOD SAFETY
660 Pennsylvania Avenue, SE,
Suite 302 Washington DC 20003
202/547-9359, www.centerforfoodsafety.org

COMMUNITY FOOD SECURITY COALITION
PO Box 209
Venice, CA 90294
310/822-5410
www.foodsecurity.org
Farm to School Program:
www.foodsecurity.org/farm_to_school.html

US DEPARTMENT OF AGRICULTURE COMMUNITY FOOD SECURITY INITIATIVE
Coordinator of Community Food Security USDA, Room 536-A
14th and Independence, SW
Washington, DC, 20250
www.reeusda.gov/food_security/foodshp.htm

AMERICAN FARMLAND TRUST
1200 18th Street, NW, Suite 800
Washington, DC 20036
202/331-7300
www.farmland.org

PUBLICATIONS



ECOLITERACY: MAPPING THE TERRAIN
Zenobia Barlow, editorial director; Margo Crabtree, editor
2000; 90 pp.
Learning in the Real World
\$11.95 from the Center for Ecoliteracy (see above)

THE EDIBLE SCHOOLYARD
Zenobia Barlow, editorial director; Margo Crabtree, editor
1999; 90 pp.
Learning in the Real World
\$11.95 from the Center for Ecoliteracy (see above)

HOT LUNCH: A History of the School Lunch Program
Antonia Demas
2000; 34 pp.
Food Studies Institute
\$10 from Food Studies Institute, Inc., 251 Crandon Blvd. Suite 161, Key Biscayne, FL 33149

Linking Farms and Schools

Healthy Farms, Healthy Kids is the most complete report on nationwide efforts to solve for pattern among school lunch issues, the family farming crisis, the health of children, and local food systems. This is an excellent tool for individuals wanting to improve school food and agriculture education and build markets for small farmers.

Case studies of Berkeley's Food Systems Project and six other programs from California to Connecticut convey the challenges and successes of collaborative efforts. The Community Food Security Coalition has done the work of school administrators, activists, and education and agriculture policy makers by pulling together lessons, policies, and recommendations from these exemplary programs. —David Kupfer

“In order to build a customer base, the New North Florida Cooperative met with the food service director of the Gadsden County School District, J’Amy Peterson. To convince Peterson that a small, limited-resource cooperative could provide a large supply of product, the Cooperative donated 3,000 pounds of washed, chopped, and bagged leafy greens to the school as a free sample. Peterson was convinced by the gesture, and moved ahead to solidify the relationship between the Co-op and the school district.

Healthy Farms, Healthy Kids Evaluating the Barriers and Opportunities for Farm-to-School Programs

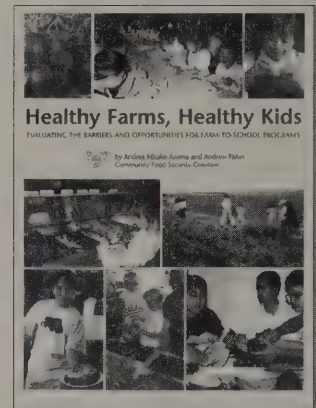
Andrea Misako and Andrew Fisher
64 pp; \$12

Community Food Security Coalition (CFSC)
POB 209, Venice CA 90294
www.foodsecurity.org

A Farmer's Guide to Hosting Farm Visits for Children

www.sarep.ucdavis.edu/Grants/Reports/Kraus/97-36FarmersGuide.htm

This free online guide provides resources for both farmers and teachers who are planning farm field trips, as well as examples of specific activities related to math, science, language, art, and social science, which connect the farm to school subjects and real life. —DK



National Farm to School Program

Urban & Environmental Policy Institute
Occidental College, 1600 Campus Road,
Los Angeles, CA 90041. 323/341-5095



Top: The Edible Schoolyard at Martin Luther King Middle School. Above: Fresh cherries are a special treat on School to Farm Field Studies Program trips to the Berkeley Farmers' Market. Left: Turning the soil in the garden at Edna Maguire School in Mill Valley, one of the leadership schools in CEL's network.



Food Systems Project Berkeley, CA

MELANIE OKAMOTO, FOOD SYSTEMS PROJECT COORDINATOR,
LEADING A FIELD TRIP TO SANTA ROSA.



IN THE GARDEN AT MALCOLM X ELEMENTARY SCHOOL, BERKELEY.



THE FOOD SYSTEMS PROJECT'S FIRST SALAD BAR, AT MALCOLM X, BRINGS SMILES.



ADMIRING THE POTATO CROP IN THE GARDEN AT PARK SCHOOL IN MILL VALLEY.



ERICK CORDOVA, A THIRD GRADER AT CITY OF FRANKLIN ELEMENTARY SCHOOL, BERKELEY, ENTRANCED BY AN ONION FRESH FROM THE GARDEN.

Wade Davis

from *Light at the Edge of the World*



A BOY CARRYING A BUNDLE OF MUSTARD GREENS TO FEED THE ANIMALS,
CHINCHERO, PERU 2001





A YOUNG CABOCLO GIRL IN THE DELTA OF THE AMAZON, BRAZIL, 1987



A PENAN BOY BRINGS HOME THE HEAD OF A BEARDED PIG, LAMIN SAPE, SARAWAK, 1998

THE NAKED GEOGRAPHY OF

HOPE

Death and Life in the Ethnosphere

In Haiti, a Vodoun priestess responds to the rhythm of drums and, taken by the spirit, handles burning embers with impunity. In the Amazon, a Waorani hunter detects the scent of animal urine at forty paces and identifies the species that deposited it. In the deserts of northern Kenya, Rendille nomads draw blood from the faces of camels, and survive on a diet of milk and herbs gathered in the shade of frail acacia trees. On an escarpment in the high Arctic, Inuit elders fuse myth with landscape, interpreting the past in the shadow of clouds cast upon ice.

Just to know that such cultures exist is to remember that the human imagination is vast, fluid, infinite in its capacity for social and spiritual invention. Our way of life in the West, with its stunning technological wizardry, its cities dense with intrigue, is but one alternative rooted in a particular intellectual lineage. Polynesian seafarers who sense the presence of distant atolls in the echo of waves, Naxi shaman of Yunnan who carve mystical tales into rock, Juwasi Bushmen who have lived for generations in open truce with the lions of the Kalahari, reveal other options, means of interpreting existence, ways of being.

Together the cultures of the world make up an intellectual and spiritual web of life, an *ethnosphere* that envelopes and insulates the

planet, and is as vital to our collective well-being as is the biosphere. Think of the ethnosphere as the sum total of thoughts, beliefs, myths, and intuitions brought into being by the human imagination since the dawn of consciousness. It is humanity's greatest legacy, the product of our dreams, the embodiment of our hopes, the symbol of all that we are and have created as a wildly inquisitive and astonishingly adaptive species.

Tragically, just as the biosphere is being severely eroded, so too is the ethnosphere, and at a far greater rate. No biologist would dare suggest that half of all species are on the brink of extinction. Yet this, the most apocalyptic assessment of the future of biological diversity, scarcely approaches what is known to be the best conceivable scenario for the fate of the world's cultures.

The key indicator is language loss. Every two weeks an elder carries a language to the grave. Of the 6,000 languages still spoken, fully half are not being taught to children. A language is not merely a body of vocabulary or a set of grammatical rules; it is a flash of the human spirit, the vehicle through which the soul of each particular culture comes into the material world. Within a single generation, we are witnessing the loss of fully half of humanity's legacy [see special section on disappearing languages, *Whole Earth*, Spring 2000—Ed.].

ARTICLE AND PHOTOGRAPHS BY WADE DAVIS

HAITI

Anthropologists are sometimes accused of endorsing an extreme relativism. Quite to the contrary, anthropology seeks not the elimination of judgment but merely its suspension, in order that the judgments we are ethically obliged to make may be informed by deep



His clothes torn away by the force of the cataract, a man emerges renewed.
Saut D'Eau, Haiti, 1982.

understanding. The anthropological lens focuses most sharply when turned to those situations in which a people and a culture have been unjustly pilloried because of traditions and beliefs that outsiders, in their ignorance, fail to understand.

Consider Haiti. When I traveled there to seek the formula of the folk preparations reputed to

This article was adapted, with Wade's generous assistance, from a talk at the 2001 Bioneers Conference.

be used to create zombies, my first challenge was to set aside all of my preconceptions about this remarkable land and the religion of its people. It's curious. If I asked you to name the great religions of the world, what would you say? Christianity, Islam, Judaism, Buddhism, Hinduism....There is always one place on the planet left out: sub-Saharan Africa, the tacit assumption being that African people had no formal religion. Of course, by ethnographic fact, they did.

Vodoun is not a black magic cult, but rather the distillation of profound religious ideas that came over during the tragic diaspora of the slavery era and were sown in the fertile soil of the New World. A complex metaphysical worldview, it is a dynamic faith in which the dead give birth to the spirits, and the spirits in turn may be invoked by the living such that the believer for a brief shining moment actually becomes the god.

It is the quintessentially democratic faith, for the believer not only has direct access to the divine; he or she actually becomes the spirit. The Haitians, indeed, walk in and out of their spirit realm with an ease and impunity that has always astonished the ethnographic observer. When Joseph Campbell was asked to name one religion on Earth where the people actually live their spiritual convictions, his choice was Vodoun. As the Haitians say, white people go to church and speak about god, we dance in the temple and become god.

Spirit possession for the Haitian is not a moment of social pathology, but the hand of divine grace. Once taken by the spirit, the acolyte becomes the god, and as a god cannot be harmed. Thus one sees in Haiti a window open wide to the mystical. Individuals' handling of burning embers is

an astonishing example of the power of the mind—when catalyzed during a state of extreme excitation—to affect the body that bears it.

Vodoun is not an animistic faith, but the spirits are known to dwell in places of great natural beauty. The believer is drawn to these places in the same spirit in which we are drawn to a cathedral. We do not worship the building. We go there to be in the presence of God.

One of the most amazing places on the Vodoun annual round is a sacred waterfall called Saut D'Eau, where as many as 15,000 acolytes dressed in robes move across the limestone escarpment with the motion of night clouds, to descend on an amphitheater, a sacred waterfall illuminated by the glow of a thousand candles adorning the branches of a sacred mapou tree that towers over the falls. Merely to step behind the veil of the falling water, the thin cold blood of the divine, is to become possessed by Damballah-Wedo, the serpent god of Dahomey, the repository of all spiritual wisdom. At any one point in time you'll see dozens of acolytes slithering across the wet stones like the serpent in a state of grace. A man enters the waterfall fully clothed to allow the power of the falls to tear off his clothes so that, like the sacred snake that sheds its skin to emerge renewed, he will emerge renewed for the coming year.

To be sure, there is sorcery in Vodoun. To ask why is to ask why there is evil in the universe. The answer, if there is one, was given by Lord Krishna when he told a disciple to *thicken the plot*. Every religion has a notion of light and darkness. In Christianity the fallen archangel becomes the devil, the Christ child is the son of God. The struggle is to resolve this dichotomy in harmony such that light overcomes darkness, good outshines evil.

The zombie phenomenon is a narrow thread of darkness within the luminosity of the Vodoun culture and faith. The sorcerers do make a powder that can induce apparent death, but zombification turns out to be a form of social sanction, the ultimate punishment invoked by secret societies that are amongst the most powerful arbiters of social and

politic life in rural Haiti. If I were sent to Haiti to find the chemical basis of a social phenomenon, I would, in the end, explore the psychological, spiritual, political, and cultural dimensions of a chemical possibility.

the strength of the relationships among people. Sharing becomes an involuntary reflex because you never know who will be next to bring home the food for the table.

After my time in Haiti, I traveled to Borneo to seek out one of the last



"Transformation and Metamorphosis," Plaine Du Nord, Haiti, 1982.

BORNEO

I have always been fascinated by nomads, because for most of our million years of human history, we were all nomads, wanderers on a pristine planet. It was only with the Neolithic revolution 10,000 years ago that we succumbed to the cult of the seed, and the poetry of the shaman was displaced by the prose of the organized priesthood. With agriculture came sedentary life and the creation of surplus, which allowed for the formation of hierarchies.

Nomadic life is profoundly different. Given that everything must be carried on the back, there is no incentive to accumulate possessions. Hence, in a nomadic culture, the wealth of currency of the society is

nomadic peoples of Southeast Asia, the Penan, a people of the rainforest of the northern third of Borneo. Along its rivers, which drain into the South China Sea, lived a number of indigenous cultures, collectively known as Dyaks, the same as headhunters. Before a young man married, he had to present to his prospective father-in-law the severed head of an enemy; too often those heads were Penan.

So the Penan fled into the forest, where to this day they live. At one point they were 30,000 strong. In the Penan homeland everything came from the forest itself, whether it was the water gathered in bamboo tubes, or fish gathered with extraordinary toxins that stun the fish so that they float to the surface and can be readily harvested.

But if I went to Borneo hoping to

find a place wet with the innocence of birth, I found myself instead on the front lines of one of the most dramatic struggles of our time. In the 1980s, when international attention was focused on the Amazon, Brazil produced less than 2 percent of the whole tropical log exports of the world. Malaysia produced close to 45 percent, most of it from the homeland of the Penan peoples.

The Penan have seen roads pierce the wild heart of their homeland. The basis of the existence of one of the last nomadic cultures in the world is being destroyed. Throughout the homeland of the Penan, sago and rattan, palms, lianas, and fruit trees lie crushed on the forest floor. The hornbill has fled with the pheasants, and as the trees fall in the forest, a unique way of life—morally inspired, inherently right, and effortlessly pursued for centuries—is collapsing in a single generation.

Bewildered, the Penan found themselves living in resettlement camps, watching the rivers that once ran clear carry away the silt of an island continent to the South China Sea where Japanese freighters hang on the horizon, ready to fill their hulls with the raw logs ripped from the heart of Borneo.

Beginning in the mid-eighties, the Penan, in a rather extraordinary way, said enough was enough. In what began as quixotic gesture, blow pipes against bulldozers, they blockaded the logging roads, and for a time shut down all logging in Sarawak. This gesture electrified the international environmental community, but of course it did not last.

In 1998 I returned to Sarawak on behalf of *National Geographic* and found myself living with a small band of seventeen individuals, among the last nomadic Penan in Sarawak.

The situation of the Penan is emblematic of the dark undercurrent of our time—the fact that a hundred

years from now the twentieth century will not be remembered for its wars or its technological innovations, but as the era in which we stood back and either actively endorsed or passively accepted the massive destruction of both biological and cultural diversity on the planet.

Many people view this process of condensation as progress, the inevitable consequence of modernity. Indigenous cultures, though quaint and colorful, are seen as somehow destined to fade away, as if by natural law. This is not true. Neither change nor technological innovation implies the elimination of culture. Change is the one constant in history. All peoples through all time have engaged in an endless process of adaptation to new possibilities for life.

It is not change that threatens the integrity of the ethnosphere. It is power, the crude face of domination. The ultimate tragedy is not that archaic societies are disappearing but that dynamic living cultures are being forced out of existence by the specific political and economic decisions of powerful outside entities, whether it's the egregious deforestation of Sarawak, the poisoning of the fertile soils of the Ogoni, or Tibet's domination by the Chinese. That all of these conflicts result from deliberate human choices is both discouraging and empowering. If people are the agents of cultural loss, we can also be the facilitators of cultural survival.

CANADA

I want to close with a more positive story from my own homeland of Canada. Canada has not always been kind to the Inuit. In fact during the 1950s, in an effort to establish Canadian sovereignty in the Arctic, we obliged the Inuit to move into settlements, but in April of 1999, the Canadian government, in a remark-

The twentieth century will not be remembered for its wars or its technological innovations, but as the era in which we stood back and either actively endorsed or passively accepted the massive destruction of both biological and cultural diversity on the planet.

able gesture of restitution, established an Inuit homeland, known as Nunavut—a territory the size of Texas and California combined, in which 26,000 Inuit exercise total administrative control.

The Inuit's story is an extraordinary tale of perseverance, patience, and cultural survival. The Inuit know a great deal about survival. When I was narwhal hunting at the tip of Baffin Island, I recorded a remarkable story recounted by a man named Olayuk of his father who refused to go into settlements.

Remember that for the Inuit blood on ice was not a sign of death; it was an affirmation of life. The cold was not to be feared, but to be taken advantage of. Olayuk's father refused to go into the settlements, so the family took away his tools and his implements, hoping that it would oblige him to enter the settlements. Did it? No. He simply stepped outside into an Arctic night and in the darkness pulled down his trousers and defecated into his hand. As the feces froze he shaped them into a blade, put a spray of saliva along the edge, and as the shit knife took



Ipeelle Koonoo on an ice floe, scanning the sea for narwhal at Admiralty Inlet, Baffin Island, Nunavut, 1997.

form, butchered a dog. He skinned the dog with the knife, made a harness, took the rib cage of the dog and made a sled and, harnessing up an adjacent dog, disappeared over the ice flows.

In the end I think it's important to heed what Margaret Mead said, that her biggest nightmare was that as we drifted towards a monochromatic world of monotony from a polychromatic world of diversity we would drift into this blandly amorphous generic world culture in which the whole human spirit and soul was reduced to a single modality. Her greatest nightmare was that we would wake as from a dream and forget that there had ever even been any other options.

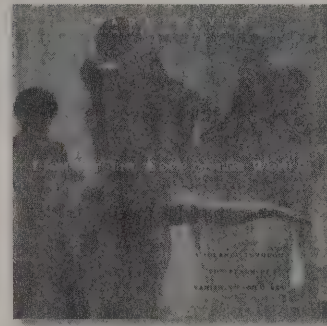
If a Martian anthropologist were to arrive on Earth and take the measure of our civilization, if the measure were technological prowess, he would see marvelous things, but if there were other criteria, he might stand aside. What if, for example, he took notice of

the fact that 20 percent of the people control 80 percent of the wealth; that though we honor the institution of marriage, half of marriages end in divorce and only 6 percent of us have our elders living amongst us; that we embrace an obscene slogan like "24/7," implying as it does the end of family yet explaining why the average American father spends eighteen minutes a day in direct communication with his children—not to mention the propensity we have to rip down the ancient forest, tear holes in the heavens, and change the biochemistry of the entire planet?

In other words the Western world is not the paragon of human potential. We are one facet of the human repertoire, one facet of the human diamond. In the end we need the visions of these other peoples, just as we need the richness of the biological worlds in which they live, because for all of us they stand apart as symbols of the naked geography of hope. **we**

Best known as an anthropologist and ethnobotanist, Wade has made 6,000 or so botanical collections while living among fifteen indigenous groups in eight South American countries. He was recently appointed as "explorer in residence" with the National Geographic Society. His long string of mind-opening, assumption-cracking books includes *Passage of Darkness*, *The Serpent and the Rainbow*, *Penan: Voice for the Borneo Rain Forest*, *Nomads of the Dawn*, *The Clouded Leopard*, *Shadows in the Sun*, *Rainforest*, and *One River*.

Although he travels to places as distant as Borneo, Tibet, the higher Arctic, and Kenya, he maintains deep roots in his birthplace in British Columbia, where he has worked as a guide, park ranger, forestry engineer, and ethnographer, and continues to spend as much time as he can in the woods of the Stikine Valley.



Light at the Edge of the World **A Journey through** **the Realm of Vanishing Cultures**

Text and photographs by Wade Davis
2002; 180 pp.

\$35

National Geographic Society

This book develops the notion of the ethnosphere which Wade Davis introduces in his essay. The light at the edge of the world is cast by a shrinking number of tenuous flames—the Cree and Ojibwa, the Xerente and Kayapo, the Waorani and the Penan—remote enclaves of cultural brilliance from the 300 million indigenous people who speak 60 percent of the world's languages and who are being driven to extinction at a staggering rate. These are people still so connected to the rhythms and textures and flavors of the Earth that, as Davis says, "There is no separation between the spirit and the crude proximity of everyday life." The author weaves stories from twenty-five years of research and travel among people (whom we too often called "primitive") whose elaborate knowledge and profound wisdom are unknown or unvalued by most of the rest of the world. This is an enormously important, gorgeously written book. The stunning photographs bring the verbal descriptions of ritual and daily practice to life. —DB

JB BUILDS A BETTER CAMPER

"Since RVs are not going to disappear...we decided to demonstrate a better way."

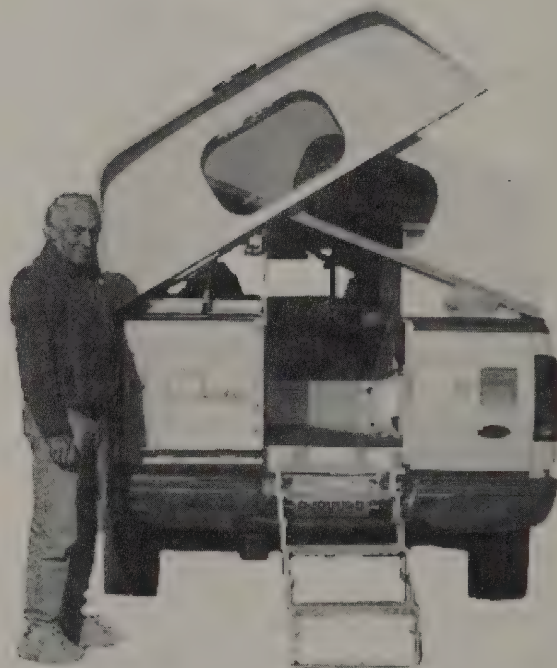
by J. Baldwin and Liz Fial



Recreational Vehicles (RVs), are proliferating—more than 6.5 million of the waddling, fuel-guzzling, condo-on-a-skateboard machines were registered last year. The newer ones are tending toward bigger, heavier, and show-offier; some weigh more than 20 tons. Would you believe marble floors and a Jacuzzi? I'm not kidding.

All this comes at a price: Most RVs are ecologically disgraceful (which can't be avoided with current designs). In addition to hauling their own weight, the ponderous vehicles must plow about 17 tons of air out of their way every mile! Poor fuel mileage and drastic depreciation are accepted as inevitable. Change is slow and often trivial (e.g. faddish macrographic paint jobs). As in most mature industries, traditional means obsolete. Time for something new.

Since RVs are not going to disappear, and undemocratic size/weight regulations are unlikely to succeed, we decided to demonstrate a better way with a simple but roomy camper that behaves like a respectable, mildly thirsty car. I expect it will appeal to the growing number of younger RV owners, hunters, and fisherfolk who want to explore back roads inaccessible to bigger rigs, and do it modestly and affordably.



Flip a switch, and the Quickup quickly ups in about a minute to become an 8' x 8' room with 6'4" headroom. The rigid, carbonfiber-on-foam shells provide security and effective insulation. A battery-replenishing photovoltaic panel rides hidden, but is exposed under skylights when the shells are closed.

The patent-pending Quickup Camper™ changes the game. The Quickup is the first camper that offers good performance, good fuel mileage, good handling, and a roomy stand-up interior.

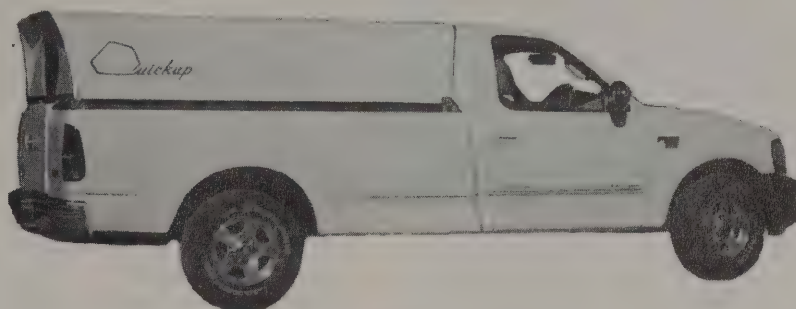
The modular design accommodates custom interiors such as an office, mobile electronics repair shop, or even a hamburger stand. In case you need the truck for hauling, Quickup-to-bare-pickup takes about an hour each way with a cordless screwdriver and an assistant.

We're testing it now, and hope to find a manufacturer and distributor soon. At the 2001 Specialty Equipment Market Association show in Las Vegas, we talked to several thousand people of many ages and persuasions. They liked it a lot.

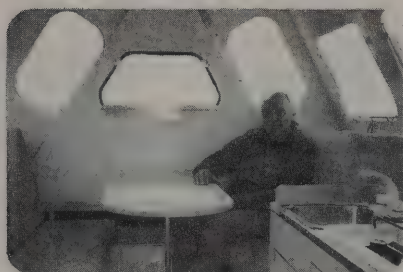
The Quickup is only the first of a new breed. The advantages of this

We built the prototype on a 2001 Ford F150 XLT with a 4.6-liter V8 and 1,900 lb. capacity—no pipsqueak. Still, the unique aerodynamic shape permits 22 mpg (hwy)—at least double that of conventional pickup-based campers with stand-up headroom. It's stable in sidewinds, too. Light weight (about half that of competitors) also helps mileage, and assures live-

ly performance. A low center of gravity and 50-50 weight distribution bring agile handling without affecting stock ground clearance. The Quickup fits most garages and is legal to park where big RVs are not welcome. There's no fabric involved so you can legally use it in Yellowstone and other parks with bears.



simple folding principle (the patent for which will be defended by rabid rottweilers) can apply to most any vehicle that does not require a behemoth's presence on the road. What would a Hypercar-based camper be like? We hope to show you someday. You can watch our progress at www.quickupcamper.com.



There's a stove, fridge, sink with hot and cold water, and a cabin heater, plus plenty of storage in fourteen drawers and a compartment for bigger stuff such as backpacks, folding bikes, or a rubber boat. Skis and snow or surf boards can ride indoors too.

The dinette transforms into a 7' double bed athwartship with lots of space above it for gymnastics. Top-hinged windows can be left open for ventilation in mild rain, and act as awnings in hot sun. Ambience is light, airy IKEA rather than stuffy 1935 Midwest parlor.



Xtreme Cooler

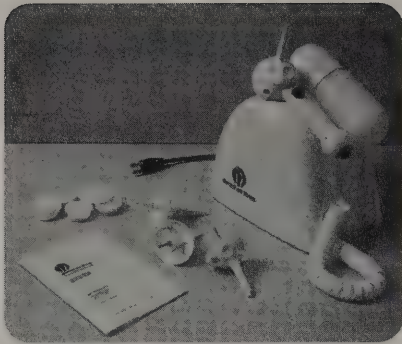
Coleman's Xtreme ice chests will keep ice for more than five days while locked in a furnace-like parked car in Death Valley. Liz and I can vouch for it: On a recent trip in 80-ish temperatures, one standard small block of vending machine ice lasted a full week, and we still had some left when we got home. They're light to carry, but strong enough to sit on. The simple secrets are thick, high-efficiency insulation, a well-sealed lid, and a heat-reflective outer surface. They cost more than the crumbly, throwaway BB-foam coolers, but you'll soon make up the difference by avoiding unnecessary \$2 re-icing. A rare example of intelligent design well realized. —JB



Xtreme™ Cooler

Coleman
Suggested retail prices:
36 qt., \$29.99;
58 qt., \$39.99; 50 qt. with wheels, \$49.99
from outdoor supplies stores
www.coleman.com

The F-16 of Oral Hygiene



The air force with mouthpiece attachments.

Don't ask Dr. Piero Policicchio about what's in your mouth. You don't want to know. He calls your mouth "the last frontier of hygiene." There are, he says, at least 200 different species of bacteria breeding feverishly behind your lips. "No place in your body," says the Michigan dentist, "has so many kinds of bacteria."

It gets worse. The mouth, says Dr. Piero (like Cher, he goes by his first name) is a perfect anaerobic environment, and anaerobic bacteria produce "acidic excrement," which lead to gingivitis. If the thought of "acidic excrement" puts a crimp in your kissing, Dr. Piero

has a jet-powered solution. He calls it the dental air force, and it may be to oral hygiene what the F-16 is to flight.

What we have here is a rather large (by tooth-cleaning standards) electrical appliance that powers a jet of air, mixed with water and a baking soda dental cleaner, over your teeth. The spray is strong enough to blast plaque away, even from beneath the gum line and between the teeth, but gentle enough to avoid damage to gums or enamel. You can even use it on your tongue.

Using the device involves loading a little plastic cup of powdered cleaner into the back of the handpiece and inserting the rotating power tip into your mouth. You then work the tip up and down and across your teeth, letting the fine spray blow away plaque and the nasty bacteria that, among other things, give you bad breath.

Dr. Piero claims the dental air force eliminates the need to floss, and I want to believe him because I hate flossing. To test the claim I brushed my teeth thoroughly, flossed, and even probed my no-longer pearly whites with a tooth pick. Then I fired up the air force and, after a minute or so, discovered numerous bits of remaining oral detritus freed from my teeth by the benign blast.

Equally impressive, after a few uses my teeth began to feel cleaner.

Although I didn't try it, you can, if you want, load the device with hydrogen peroxide instead of water, thereby whitening your teeth as you clean them.

My two daughters, 10 and 15, gave the air force mixed marks. My 10-year-old called it both "weird" and "cool," said it was "easy to do" and claimed she'd rather use the air force than brush her teeth because "it's fun." The teenager said it takes too long and she wouldn't do it every day, until I told her she could whiten her teeth with it. Ah, vanity.

To use the dental air force you have to make a major commitment—\$400, plus about 25 cents for each cup of cleaner. The twenty-five-page instruction manual tells you to use two cleaner cups per cleaning and to use the air force twice a day. I found this meant at least five minutes per session, a lot more time than I spend brushing. Piero, who admits "I'm pretty serious about my teeth," does the routine three times a day. —DB

air force

\$399.97. air force, inc.
933 Butternut Drive
Holland, MI 49424
616/399-8511, www.dentalairforce.com

You Give Me a Charge

When I was recuperating from surgery, my wife got a cell phone so I could track her down in an emergency. We're still ambivalent about the thing, but were happy to have it a few times, and it saved Pat from a lot of trouble after a late-night car breakdown.

But Pat doesn't use it enough to constantly check to see that it's charged, and has sometimes found the battery drained (and the charger at home or in the office) when she wanted to make a call. She must not be the only one, because two companies have recently announced competing products for grid-free cell-phone charging.

The FreeCharge comes from Motorola and Freeplay Energy (the folks with the wind-up radios and flashlights). The first adapter units, available this spring, will work with Motorola phones; adapters for other brands are due later in the year. They work like the Freeplay radios. About thirty seconds of cranking gives you four or five minutes of talking time. The units weigh about a half pound and measure 5-1/2" x 2-1/2" x 2".

Advantages: renewable power, anytime, anywhere. You can keep talking as long as you're willing to crank. You get to exercise your arm muscles.

Disadvantages: something else to lug around. Cost (about \$65). Keep cranking or lose your juice. They'd be really useful with satellite phones, when you're miles away from recharging power. The company says the FreeCharge would "in all likelihood" be able to charge a satellite phone, but hasn't seen enough demand yet to justify R&D costs for an adapter.

Electric Fuel Corporation's answer is the INSTANT POWER battery, good for sixteen hours of talking. Advantages: available for major phone models. About a twelfth the size of the FreeCharge. Long shelf life. Initially cheaper. Disadvantages: it's a disposable, bound eventually for the landfill.

Meanwhile, if you want to think ahead, Lawrence Livermore Lab hopes to have a fuel cell for phones available commercially in two to three years. —MKS



FreeCharge.

FreeCharge

\$65. Freeplay Energy Group
56/58 Conduit Street
London, W1S 2YZ, UK
www.freyplay.net

INSTANT POWER

\$15. Electric Fuel Corporation
632 Broadway, Suite 301
New York, NY 10012
212/529-9200, www.electric-fuel.com

Watts Up?

The *Viridians* (Whole Earth, Summer 2001, p. 8) get excited by fanciful electric meters that tell how much electricity your whole house is using. It's good to know how much you use, but even more important to know where and why. These two products can help you figure that out. You can find phantom loads ("vampires," which suck up watts while you think they're turned off); find when your household devices need cleaning, tuning, or replacement; and compare the power hunger of products before buying them.

To use either meter, plug the device you want to measure into it, and plug the meter into an outlet. Both models display current wattage, cumulative kilowatt-hours, and cumulative cost (based on the electric rate you enter).

Both are professionally made, compact, and durable, with warranties. Brand's is more utilitarian, though the power outlet is inconveniently in back and the display in front. Watts Up? puts both on the top, and its sculpted case invites you to hold it in your hand. Both come with brief, clear (though not professional) manuals.

Neither is cheap, but what they taught me will save my household about \$15 a year on electricity, so they can pay for themselves—especially if several people chip in to buy one, or lend to friends after doing their own energy audits. (One friend learned that he could save \$60 a year by using a router instead of a desktop computer.)

Watts Up?'s friendly design makes it a great tool for teaching—in the home or classroom—but it's much less accurate below 20 watts. Brand's model isn't as sexy, but the higher price gets you improved precision for hunting vampires and pinching pennies.

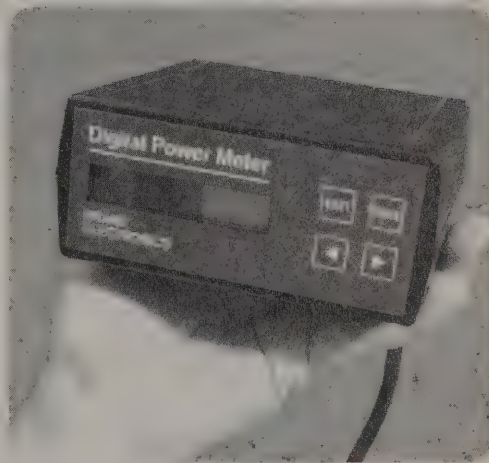
—Michael S. Morton

Watts Up?

\$95.95 (\$99.95 postpaid). Electronic Educational Devices, Inc., 2345 S. Lincoln Street, Denver, CO 80210. 877/WATTS-01, 303/282-6410, www.doubleed.com (street prices as low as \$79.95, e.g. from www.efi.org).

Digital Power Meter

\$149.95. Brand Electronics, 421 Hilton Road, Whitefield, ME 04353. 888/433-6600, www.brandelectronics.com (street prices as low as \$145, e.g. from www.suntrekenenergy.com).



Petzl Zipka Headlamp

\$44.95
from REI
www.rei.com

Petzl made the first headlamp I ever used, and they continue to make the best. With the new Zipka, they have made the lightest and coolest looking headlamp to ever grace a backpacker's forehead. Weighing in at a mere 64 grams, the Zipka operates on 3 AAA batteries and delivers a strong beam that is great for reading in the tent or cleaning up around camp after dark. Attaches to head, hand, or ankle by a spooled cord housed inside the tiny case. Exerts a pleasant and soothing pressure when worn against the head. —SG



WHAT'S

NEXT



Looking to the Next Decade

Excerpts from Global Business Network Conversations



The musings that follow began as material for the 2001 Annual Forum of GBN, the global membership organization for thinking collaboratively about the future and developing tools for organizational learning and innovation. The 2001 Forum generated scenarios around significant shifts in the world that might radically affect the business environment of the next decade.

In preparation, GBN “knowledge developer” Pete Leyden interviewed thirty GBN members and other luminaries, asking “what should global businesses be watching for, learning about, and doing differently in the next ten years?” GBN members received summaries last fall. We are grateful for permission to choose and reprint this selection.

GBN is posting complete transcripts on its website, www.gbn.com, over the coming months. Readers of the transcripts found them so helpful that Pete is continuing to interview members. The transcripts will be edited into a book, *What's Next: Exploring the New Terrain for Business*, to be published late this summer by Perseus in North America and John Wiley & Sons in the UK/Commonwealth. Readers will notice that there's only one woman in this group. GBN staff assure us that women will be better represented in the book. —MKS

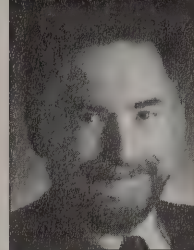
Reviewing the interview transcripts, GBN's editors extracted common themes and patterns emerging from them. Here are some of the highlights:

- *If the nineties were shaped by technology and markets, then the coming decade will be more about people, culture, and society. Given the relatively slow pace of cultural change, continued friction is likely, especially as values re-emerge—and collide—in public debates over biotech and common global issues.*

- *Technology will nonetheless continue to have a transformative impact, driven in the short term by expanding computer and telecommunications capabilities. In the longer term expect mutually accelerating benefits from technological and scientific advances in photonics, biotech, nanotech, energy, and neuroscience.*

- *The current economic downturn is worthy of concern, but not panic, when viewed in a longer-term context. To some extent, the dot-com and stock market woes reflect different time expectations among techies, entrepreneurs, and investors—especially concerning the adoption of new technologies and behaviors.*





The US as Rogue Superpower

Last summer in the Hart-Rudman Commission we developed the scenario of the rogue superpower—that the United States, because of its great success, would be seen as the Microsoft of the world: hugely successful, triumphant, proud to let everybody know that we're the number one top dog and prepared to play rough when we don't like what you do. Nobody much loves Microsoft, and nobody much loves us. This is a world in which we end up isolated rather than isolationist, because the rest of the world aligns against us. In fact, one of the things we said in that scenario was that we would be thrown out of United Nations bodies led by the French, which, of course, is exactly what has happened with the UN Commission on Human Rights.

How can we avoid being seen as the rogue superpower? The way we framed it is: Can you lead from the back rather than the front? Can you enable others rather than take the top-dog role all the time yourself? And what it would mean to do that?

The State Re-emerges in Response to the Excesses of the Market

Outside of, and to some extent within, the United States we're seeing the state re-emerging to challenge the power of the market. That is, the last decade had been about the market over the state. The next decade may be the state coming back. Let me give you a couple of good examples. The California electricity crisis. Clearly, the deregulation of electricity was the state giving way to the market. Now it's very clear that the state has stepped back in a big way already. British rail deregulation. Same thing happening there.

On the other hand, one sees the incredible success of Singapore. Here is a perfect blending of the state and the marketplace. So the model around the world is increasingly Singapore, not the United States. Go learn from Singapore.

The Rise of Criminal States

Something that worries me a lot is the rise of criminal states, countries that are really run by criminals. Some are trivial, like what happened in Fiji. But some are quite significant, like Colombia and Venezuela and all of central Africa and some parts of central Asia. So what happens when organized crime, in effect, ends up running the country? What do you do if you're a business? You can stand dictators but can you stand crooks?

Why has so much of the potential of the hydrocarbon resources of the Caspian not happened? Because of the various criminal states around the Caspian, and the difficulty of doing business in them. And often it's hard to tell between the criminals, the army, the rebels and so on. Or take Sudan—the hot issue right now in oil.

But the one that worries me a lot is the Colombianization of Mexico. What happens if you succeed in Colombia and simply drive the drug trade into Mexico, and then you've got to deal with Mexico like Colombia? Are you prepared to send two million people into Mexico? To close the border? Because that's what it'll take.

The Increasing Competition between the United States and Europe

The competition between the US and Europe around the world is going to get really rough. I think that alliances

between US and European companies will get harder. We saw, for example, the breakdown of the AT&T-BT alliance. I think it was called "concert." Well, they couldn't play a concert together. We just had another great example: the Honeywell-GE alliance. What did the Europeans say? "No, we're not going to

Peter Schwartz on Geopolitics

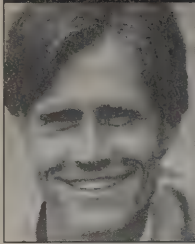
permit that. You won't be able to operate here in Europe because you're going to be too powerful a competitor for our fragmented companies." So there is a European intervention stopping two American companies from merging. We'll see much more of that.

The Prospects for Increased Global Governance in the Near Term

This administration in the United States is about destroying international institutions, not building them. They want fewer, not more. They want the US out, not in. So let's be clear. There is no support—zero, none, nada—for building new international institutions, let alone fixing existing ones, let alone participating in existing ones.

I think we need, for example, an eco-IMF, something to deal with international environmental conflict. I've said that for years. Not a chance. In fact, what did they say? The hell with Kyoto, OK? We don't need to think about it. We don't need to do any research. We don't need to understand what's going on here. We know. We don't play. Energy conversation is for wimps....

Peter Schwartz is chairman of GBN. He anticipates some big changes in geopolitics based on his recent work with the US government on the future of national security.

**The Anti-Globalization
Protests**

I could be wrong, but I think that we're seeing the first worldwide uprising. We've never seen one before. We saw proto-fascistic movements like communism and Marxist-Leninism, but they're the opposite of what we're seeing right

**Paul Hawken on
Anti-Globalization**

now. They had these charismatic, white male vertebrates leading them. The global movement resisting corporatization doesn't have leaders that way. There is no single leader or group of leaders. It is not organized. There are intellectual leaders, to be sure, and some heroes. But it is as yet not a political movement. It's a social movement. We're seeing just the beginnings of it.

**Corporatization and the Loss
of Diversity**

The way you create healthy, vibrant economies and societies is through diversity. We know that scientifically. Any system that loses its diversity loses its resiliency and is more subject to sudden shocks and changes from which it can't recover. The corporatization of the world is the loss of diversity—it's forcing uniformity upon people. As [Arnold] Toynbee said, the sign of a civilization in decay is the institution of uniformity and the lack of diversity. It's exactly what we're seeing. The degree to which a company or a corporation honors and then allows diversity to emerge from a place, a country, a locale, a culture, a tribe, a city is a great thing. The degree to which it tries to enforce a one-size-

fits-all formulaic solution to diet, to media, or whatever, to me, is going to be seen in hindsight as just as much a criminal act as the deracination of indigenous people by the Spaniards, the genocide of Native Americans, or the enslavement of African Americans. We look back at those things now and say, "Oh my God, really?" We will look back at what we are doing right now to the world and see it as a horrific violation of humanity.

**The "Corporatization of
the Commons"**

When we were children, if the CEO had a 7 or 8 percent return on investment, that was considered to be a very, very credible performance consistently over time, and they had a job for life. Now if you do 7 or 8 percent, you're not a real man and you won't have a job for life; you will be replaced by someone who promises greater returns....

So corporations are seeking new areas in which they can grow. We're seeing them going into areas that they just didn't imagine before. One of them is water. One of them is the human genome. One is the germplasm for food. We're seeing them go into traditional shamanic medicines and botanicals. You're seeing corporations basically colonize [areas] in what is an extension of Western culture that goes back 500 years.

**How Business and Social
Entrepreneurs Will Be
Remembered**

The constraint of capital, the constraint of growth, the constraint of competition and the constraint of time to market or time to profit—these are huge constraints that encumber what corporations can and cannot do. There is an underlying assumption that we

do what we can within the constraints that are imposed upon us. I understand that. It's why I think that the truly innovative acts of entrepreneurship that are occurring now and will continue to occur are no longer in business.

Social entrepreneurship—that's where the action is. That's where the real innovators are. Those are the people who we'll remember fifty to 100 years from now. We won't remember one single person who's in business except as a footnote....

Every single person who runs a corporation today, including Mr. Gates, will be forgotten. Their names may live on as a foundation or a residual pool of capital; I'm not saying that won't happen. But nothing that they're doing will be seen as valuable fifty to 100 years from now. Nothing. The only real value that is being added today is being added by people who are outside of the business framework....

The world needs to take care of itself. You know the numbers. Nearly three billion live on less than two dollars a day, two billion on less than one dollar a day. A billion people cannot work who want to work. That number has been growing faster than employment for the last twenty-five years. Eight hundred million people are malnourished. Eight million children die every year because of malnutrition and disease. I'm saying it is the people who devote their lives to addressing that who will be remembered.

Long-time *Whole Earth* advisor and contributor Paul Hawken wrote about the Seattle WTO demonstrations in our Spring 2000 issue. His next book, *Uprising: The Forgotten, the Excluded, and the Uninvited*, will be published in 2003 by Viking Books.



Poor People Don't Live Under the Rule of Law

WHAT'S NEXT



The Long Arm of Commercial Law

The law's becoming global. Because as globalization occurs, there is a very strong interest by multinational corporations to have at least the commercial rule of law implemented in the places where they're investing. You want to be able to protect your intellectual property, and you want to be able to protect your investments, and the only way to do that is if there's some world law that exists in that country. The place where it's happening big time is with big infrastructure projects like power plants, telecommunications, and airports in places like China and Indonesia. Those are all being developed largely by construction companies that are headquartered in the West. And they've got to have a legal regime in place that protects them if the government changes or Indonesia goes into crisis because of its currency. And so there's a globalization of commercial corporate law and securities transactions, and what you're seeing is a lot of countries basically copying our securities laws or copying our commercial code.

International contract law already exists. Take an example of a big power project where you have different banks from different countries financing it. You've got multiple construction companies that are all cooperating to build it—some Italian, some Korean, some Japanese. You've got all the local contractors in the country where the thing's being built. The rights of these various players are governed by contracts and the law of contracts. And, generally, what they've done is agree in their contracts that any dispute will be governed by X law, usually US law, and will be heard in an international arbitration setting, which is basically a contractually created court that has rules and procedures and enforcement

mechanisms. If there is a dispute, the parties appoint arbitrators, contractually created judges to resolve the dispute. But they are then the decision makers, and their decisions are binding. It's contractually agreed to that you're bound by this decision. And if you want to play the game of global commerce, you've got to agree. Of course, setting up these contractual arrangements requires lots of money and is generally not available to individuals.

Corporations have it now. Individuals don't. From a global metaperspective, one of the big tensions, I think, is that the rule of law is increasingly available to corporations, or mostly available to corporations. Individuals, especially poor people, do not generally live in a world where the rule of law exists. Think about what a poor person in Bangladesh faces in terms of the rule of law. They don't have it. Exxon has it if it's in Bangladesh. So in some ways, the legal arena has been turned into something that is really serving powerful institutions as opposed to individuals. And I think that's problematic, ultimately.

That's one of the reasons you have these protests at big global conferences, because the people attending the conferences are generally representing big institutions—big government, big corporations, big multinational organizations like the IMF and the World Bank, global institutions of all sorts. Individuals don't really have a voice in a lot of those—or let me say they don't perceive themselves as having a voice, although they do theoretically. And so what are they doing? They're taking to the streets.

The Intellectual Property Battle

The big piece that's out there is intel-

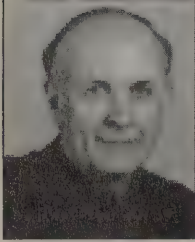
lectual property issues. That's a place where there's not a lot of agreement. You have countries that are engaging in outright piracy of intellectual property—software, drug patents, the whole bit. And then you think about that in the context of something like Napster or other peer-

Michael Hertz on Global Law

to-peer technologies, where you have fairly large groups of the population spitting in the face of obvious legal principles. While you can argue that the law should be changed, people using Napster knew they were violating copyright laws. But now you have a situation where intellectual property is being stolen in a pretty global way. People are violating the intellectual property rights of others, and you can argue that those rights should be changed or you shouldn't be able to protect your intellectual property. But it's undeniable that those traditional rights are being pretty blatantly ignored.

I think it'll be a huge battleground, and I think ultimately the people who are in favor of changing the current structure in the next ten years will lose. I think the people who have the money and the power are going to fight like hell to keep their intellectual property protected. And I think it's going to take a lot of time to erode that power, and it's not going to be easy.

Michael Hertz is currently on leave from his partnership in a major global law firm and is founder of the startup Pro Bono Net.

**The Marketplace
as King**

I call it the new reformation. The first reformation was the separation of church from state. The pope really was calling the shots prior to the reformation. Health, education, and welfare were in the hands of the church. Then you had Martin Luther nailing his theses to the door, and you got a separation of church and state. You had a tremendous amount of power pass from the heads of church to the heads of state—kings, presidents, and prime ministers. Now we're going through a second reformation. In the transition from the political era to the economic era we're

**The Challenges of
Universal Service**

Wherever you have a mandate for universal service, market mechanisms alone will not be adequate, for slightly different reasons in different industries. In telecom, it's elegantly obvious in the idea that telecom is a kind of natural monopoly. It's absurd to have two telephones on your desk—one to contact half the people you know and another one that hooks you to the other half. That would be dumb. The ideal communications system hooks everybody to everybody. You don't want a telephone system that doesn't allow you to call someone in St. Louis just because he's on a different grid. I don't want a system that some people

Do you go all the way like the Chicago economists and try to privatize everything? No, you can't. You have to come to a place where you appreciate and understand the limits of the marketplace and then ask yourself, "OK, what is the residual role for the public sector? How do we want to influence or manage markets?"

A New Ethical Pluralism

[There are] stages of developmental psychology and ethical development. Early on there is just sort of obedience: whatever Dad or God says. Then there's a stage of absolutism: I know what's right. Only higher up do you get to where you can hold on to your own values and let others have theirs. I think that is a competency. I don't even know how to name it, that which allows you to be ethically driven without being a zealot, ethically driven without being blind. It has something to do with pluralism.

We need a cultural competency that goes beyond manners—being rooted in your own values to where you can comfortably hear someone else's differences. Pluralism is a competency, not just mere subjective relativism, but ethical pluralism. In the past, there was a sense that if it's ethical then it has to be hierarchical and monistic, and if it's pluralistic, it's amoral or relativistic. I say no, that somewhere in between there is an ethical pluralism. There's a way of holding on to your values and letting others have theirs.

Jay Ogilvy, who began his career as a philosophy professor, is cofounder of GBN.

Jay Ogilvy on Responsibilities of Business

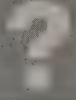
seeing this tremendous transition of power from the heads of state to the marketplace....This isn't to say that politics goes away any more than the churches have gone away, but it will take a back seat. It seems to me now that it's the economy, stupid. National governments cannot manage their currency or monetary policy against the international float.

This feeds right into the question of the new responsibilities of the corporation. I think we are solidly in the economic era but that some folks in the marketplace have not really waked up to the fact that the old boundaries between the public sector and the private sector have really shifted. Along with that increased power comes increased responsibilities. So, for example, health care, education, welfare: These things are largely run by the private sector and not so much by the public sector.

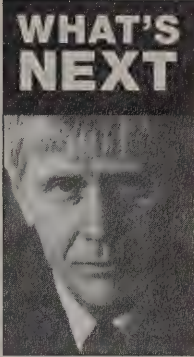
can't afford to join. I want everybody on the same system.

There are slightly different reasons in education and health care. In education, society is worse if illiteracy increases. In health care, we're all worse off if there are sick and infectious people walking around. We're also worse off if people have no health insurance, which causes an increase in my health insurance bill because I'm cross-subsidizing their trips to the emergency room, a dumb and inefficient way to get health care. In these three industries—health, education, and telecom—you have these fairly clear demonstrations of the limits of market mechanisms.

If you start from wanting to improve the lot of the downtrodden, recognizing the inadequacy of political solutions and the transition from a political era to an economic era, then how far do you go in that direction?



China: Massive Problems India: A Great Experiment



China's Massive and Unprecedented Problems

[One] huge problem centers around environmental degradation. You'd have to point to the staggering environmental cost of this development, the degradation of almost every aspect of life—air, water, estuarial life, forestry, grasslands. In China, you have much more fundamental forms of resource destruction. Aquifers are pumped way down and rivers stop flowing. For instance, the Yellow River effectively doesn't flow anymore. It used to be called "China's Sorrow" and washed away millions [of people when it flooded]; now it's so dammed up and pumped out that it's basically, in the lower regions at least, a great big sewer. Water resources are in a terrible state. So is air. Twenty-five years ago you had one beautiful blue day after another in Beijing, even though they were burning a lot of coal. Now there's automobile exhaust pollution too; you don't see the sky sometimes for a month. And there's the flooding of the Yangtze due to the destruction of forest habitat in the foothills of the Himalayas. These are the costs of keeping growth rates high and the economy going.

China is now host to the largest migration in human history: 150 million people migrating from the countryside into the cities to pick up work with no welfare, no schools, no health care, no houses, nothing. In cities like Beijing, Canton, and Shanghai roughly 30–40 percent of the populace are what they call "floating population." This works to China's advantage in certain economic ways, namely by providing low-cost labor to build freeways, tunnels, buildings, and infrastructure. But it works to China's disadvantage if there's an economic slowdown, because suddenly you then have tens of millions of displaced people.

There is no context for them. They can't go back to the land.

China's Precarious Financial Institutions

The banks are effectively basket cases. They're cash registers that the state has used to bail out state-owned enterprises. It's a huge problem and China doesn't know what to do about it. They've tried to contrive an asset management regime, sort of like what we did with the savings and loan crisis. But the money has to come from someplace. And China's financial markets are rigged lotteries that are manipulated by people on the inside. There's no fiduciary trust, no real regulation. There's no way for investors to have confidence that they're not going to be skinned alive by a bunch of manipulators who are out to play the market. Until China gets financial markets that aren't so corrupted and poorly regulated, they will not be able to generate sufficient domestic capital to keep the economy going.

The Myth of Chinese Entrepreneurialism

To call the Chinese entrepreneurial is something of a trite cliché based on a few people in South China or Shanghai. Traditional Chinese had utter and total contempt for merchant activity. The Confucian hierarchy started with the emperor, then the scholar officials who took the exams and joined the government. Next came the peasants, who are considered noble but ignorant and poor; then came the soldiers who were in the army and considered necessary but crude; and last came the merchants. Merchants were reviled. When merchants got money, the first thing they did was get a tutor so their kids could take the exams and vault up to the scholar official class. Put it this way: If you put a person in

a burning building and open the door, he is going to run out. That's what the Chinese have done vis-a-vis the economy. You close the doors of politics, of culture, of religion, and you open the door of getting rich—they're going to get rich. It would take a very slovenly population just to stand there and burn.

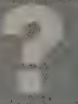
Orville Schell on China and India

The Advantages of India

India is the most diverse, dynamic cultural festival I have ever seen in the world—good and bad. This country has not been culturally defoliated as China was....India's a bit of a mess and a bit chaotic. But if you believe as I do that people do not live by the NASDAQ alone, that they also need things like family, religion, culture, history, and values, then in a sense India is a more coherent society in its incoherent way. It has its self still intact, whereas China has cancelled itself so many times that it doesn't know what it is.

India is a profound cultural experience. It also has a much more relaxed attitude toward the outside world. It's not fraught with pugnacity. It has a huge cheap labor force and a very good education system. It's an English-speaking country for educated people. Yes, the transportation system isn't great. There are terrorists. There's some real strife. But India is going to be a great experiment. It's democratic, albeit with major failings. It's been in transition ever since the 1940s, when India became independent.

Asia scholar and journalist Orville Schell is dean of the UC Berkeley Graduate School of Journalism.



The Middle East and Its Clash with the West

The Middle East is, in a weird way, the other part of the West, the other half of the Roman Empire and of the Mediterranean world.

As recently as 800 C.E., these countries were part of the West; Turkey was until the fifteenth century. And they perceive that they've always been in contact with the West.

The Chinese had never heard of the West until the fifteenth century except for travelers' tales. Similarly, we erupted into Southeast Asia and

For the Middle East, the perception of the West was very different. They believed that they were both culturally and morally superior. They even believed that they were technological superior down to the late nineteenth century; in fact, they lost technological equality around 1750, but it took a while for this to sink in.

Then in 1918, long after the rest of the world had been colonized, long after even Africa had been colonized, they're suddenly colonized. It is that recent, within living memory. They were all still living in this dream world of "We are the other half of the Mediterranean, a morally superior civilization. We are suffering minor technological handicaps at the moment but obviously we always win in the end." Suddenly there are European troops in the streets and they're reduced to colonial status. The huge disaster is still resonating in the collective memory in these countries in a way that the experience of [Robert, Lord] Clive in India or what happened to the Muslims in Indonesia doesn't resonate in modern consciousness.

Their relationship to anything that we do and to our artifacts, both political and technological, is far more ambivalent than anyone else's. They believe that these are the poison gifts of the people who, unfairly, and against all the dictates of right-thinking history, somehow won. There has been an enormous ambivalence toward taking on Western values, even if that gets you Western goods and power. The whole thing is much more fraught emotionally.

What you now have is a generation of people whose first-level analysis is that Western equals corruption, imperialism. They're thinking that they must return to root values, Islam, so on. At the same time, of course,

they want cars, their kids to go to university, and their countries to be modern, powerful, and respected in the world. They even want democracy, but unlike the Filipinos or the Indians, they can't simply pick up this model and say, "That's culture-free, we'll use that." For the Middle East it isn't culture-free; it is laden with negative symbolism.

The Fundamental Mindset

So the fundamentalists, first of all, are dedicated to tearing down the structures they see as being imposed by people who are lackeys of the foreigners, whether the former Soviet Union or the West. But they do want to build afterward. They are in a real intellectual bind. Look at Iran, which is the classic case for twenty years running. It had a democratic revolution: 77 percent of the population voted for [Mohammed] Khatami in the last election. They want to have their cake and eat it too. They want to have values that they think of as their own and yet transmute those into a democratic political system. This is not impossible, provided they let things like hierarchy go. But there are a bunch of guys with beards who like the idea of hierarchy because they are at the top of it. Operationally, Islamic fundamentalism is a culturally necessary detour around the obvious road to modernization and democratization—a necessary but conceivably very uncomfortable, lengthy, and ugly detour.

Gwynne Dyer is a Newfoundland native with a Ph.D. in Middle Eastern studies from the University of London. His syndicated column appears in 150 newspapers in some thirty countries.

Gwynne Dyer on The Middle East

Latin America all of a sudden, coming by ships over the horizon. That's not the case with the Middle East.

The Middle East has known us for 1,400 years and has been at war with us for most of that time. Until the eighteenth or nineteenth century, they thought they were winning—and usually were. They lost Spain, but they were on the border of Budapest as recently as 1688. They still held all of the Balkans until seventy-five years ago.

For the rest of the world we came from Mars. Suddenly here we were with our superior technology, better organization, huge wealth, and frightening, ferocious discipline. We came, we conquered, we left again, and they picked up the technology and started using it, Japanese-style. Eventually they will democratize not because we are democratic but because if we give them those technologies they will do it for themselves. It goes back to the first principle: human values are in fact egalitarian.



Whole Earth readers represent an extraordinary community of critical thinkers. Now we want you to think critically about *Whole Earth*; we want to know what you like about it and what you don't. Answering this survey will help us improve the magazine, making it more responsive to your interests. It will also help us convince progressive companies to promote their sustainable products in *Whole Earth*. Please fill out the survey and send it back, now. You can also complete the survey on line at www.wholeearth.com/readersurvey.

What is your zipcode? _____

What does the name "Whole Earth" mean to you?

What adjectives would you use to describe *Whole Earth's* values and personality?

How did you acquire this issue?
 SUBSCRIPTION NEWSSTAND OTHER
 GIFT FRIEND _____

How long have you been reading *Whole Earth* publications?
 LESS THAN A YEAR 3-6 YEARS 11 OR MORE YEARS
 1-2 YEARS 7-10 YEARS

How often have you read *Whole Earth* in the past year?
 EVERY ISSUE OCCASIONALLY FIRST TIMER

How much time do you spend with each issue?
 OVER 3 HOURS 1-3 HOURS LESS THAN 1 HOUR

How do you archive *Whole Earth*?
 TOSS IT AS SOON AS IT ARRIVES SAVE 1-2 YEARS OF BACK ISSUES
 TOSS IT AFTER I HAVE READ IT SAVE EVERY ISSUE

To what extent do the book reviews influence your book reading decisions?
 A LOT SOMEWHAT NOT MUCH

Where do we need improvement (e.g. content, design, cover, ect) in *Whole Earth* magazine?

What are your areas of Interest?

	HIGH	MED	LOW
ALTERNATIVE ENERGY	☺	☺	☹
CHILDREN	☺	☺	☹
COMMUNICATIONS TECHNOLOGY	☺	☺	☹
COMMUNITY BUILDING	☺	☺	☹
COMPUTER TECHNOLOGY	☺	☺	☹
ECOLOGY	☺	☺	☹
ECONOMICS	☺	☺	☹
EDUCATION/SCHOOLING	☺	☺	☹
ELECTRONIC MEDIA	☺	☺	☹
FAMILY AFFAIRS	☺	☺	☹
FOREIGN AFFAIRS	☺	☺	☹
GARDENING	☺	☺	☹
HEALTH	☺	☺	☹
HUMAN RIGHTS	☺	☺	☹
NATURAL HISTORY	☺	☺	☹
OUTDOOR RECREATION	☺	☺	☹
PUBLIC POLICY	☺	☺	☹
SEX	☺	☺	☹
SPIRITUALITY/RELIGION	☺	☺	☹
SUSTAINABLE LIVING	☺	☺	☹

What other publications do you read regularly?

ATLANTIC MONTHLY	NATURAL HEALTH	SCIENTIFIC AMERICAN
AUDUBON	NEW AGE	SIERRA
EARTH ISLAND JOURNAL	NEW YORK TIMES	THE ATLANTIC
E MAGAZINE	NEW YORKER	THE NATION
FORTUNE	NEWSWEEK	TIME
HARPER'S	ORGANIC GARDENING	TRICYCLE
MOTHER EARTH NEWS	ORGANIC STYLE	UTNE READER
MOTHER JONES	OUTSIDE	VEGETARIAN TIMES
NATIONAL GEOGRAPHIC	ROLLING STONE	WIRED

How often do you use:
 EMAIL DAILY WEEKLY MONTHLY NEVER
 WWW DAILY WEEKLY MONTHLY NEVER
 CELL PHONE DAILY WEEKLY MONTHLY NEVER
 PAGER DAILY WEEKLY MONTHLY NEVER

What kind of Internet connection do you have at home?
 NOT CONNECTED 24K 56K ASDL ISDN T1 WIRELESS

Gender: MALE FEMALE

What year were you born? _____

Education:
 HIGH SCHOOL SOME GRADUATE SCHOOL
 SOME COLLEGE GRADUATE DEGREE
 BACHELOR'S DEGREE

Home Ownership
 OWN HOUSE LIVE RENT-FREE
 OWN CO-OP/CONDO NONTRADITIONAL HOUSING
 RENT HOUSE OTHER
 RENT APARTMENT

Marital Status:
 SINGLE MARRIED DIVORCED REMARRIED WIDOWED

Do you have children? YES NO

How many? _____

Ages? _____

Employment
 FULL-TIME UNEMPLOYED STUDENT
 PART-TIME SELF-EMPLOYED

Which category best describes your work position?
 BUSINESS OWNER ADMINISTRATIVE OTHER
 PROFESSIONAL RETIRED
 MANAGERIAL STUDENT

Household income:
 UNDER \$25,000 \$61-80,000 \$150,000+
 \$25-40,000 \$81-100,000
 \$41-60,000 \$101-150,000

How many CDs/records/tapes did you purchase in the last 12 months in the following genre?

_____ CLASSICAL	_____ NEW AGE	_____ SOUL
_____ COUNTRY/WESTERN	_____ POP	_____ WORLD
_____ FOLK	_____ RHYTHM AND BLUES	
_____ JAZZ	_____ ROCK	

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Do you use the Internet for any of the following?

FINANCIAL	TRAVEL	JOB RELATED
NEWS	CULTURAL EVENTS	MEDICAL
EMAIL	RESEARCH	

Have you purchased any of the following online?

BOOKS	FLOWERS/GIFTS	HOUSEHOLD ITEMS
MUSIC	STOCKS	REAL ESTATE
AIRLINE TICKETS	CARS/VEHICLES	OTHER

Do you bank online? YES NO

Do you pay bills online? YES NO

How many books did you purchase in the last 12 months?

Did you travel (nonbusiness) in the last 12 months?

NO TRAVEL	DOMESTIC	INTERNATIONAL
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If you traveled what was the mode?

SIGHTSEEING/RELAXATION	SPIRITUAL RETREAT
ADVENTURE EXPEDITION	HEALTH SPA/RESORT
NATURE/ECOTRAVEL TOUR	

Do you have pets? DOG(S) _____ CAT(S) _____ OTHER _____

What recreational activities do you participate in?

AEROBIC EXERCISE	DANCING	PHOTOGRAPHY
ARTS/CRAFTS	FISHING	SKIING
BACKPACKING/HIKING	GARDENING	SNOWBOARDING
BICYCLING	HEALTH CLUB/GYM	SWIMMING
BIRDWATCHING	INLINE/ICE SKATING	TENNIS
BOATING/SAILING	JOGGING	WALKING EXERCIZE
CAMPING	MUSIC/SINGING	YOGA/MEDITATION

Do you purchase or regularly use personal care products that are free of animal testing? YES NO

Do you buy green/environmentally safe household and cleaning products that are nontoxic and biodegradable?

YES NO

Do you purchase post-consumer/recycled paper products?

YES NO

What percentage of your shopping is at natural food stores or co-ops? _____

Do you purchase/use regularly any of the following items made from hemp?

CLOTHING	FOOD/COOKING	CRAFT MATERIALS
PERSONAL CARE	PRODUCTS PAPER	
PRODUCTS	BUILDING MATERIALS	

Do you invest or intend to invest in a money market or mutual fund that practices socially responsible investing?

YES NO

Do you have or intend to obtain a credit card that donates a percentage of each purchase to a nonprofit organization?

YES NO

Are you interested in electric vehicles or alternative fuel vehicles?

YES NO

How often do you use public transportation?

NEVER	ONCE A WEEK	EVERYDAY
ONCE A MONTH	5 DAYS A WEEK	

the next Whole Earth reader survey

Please fold and tape shut before returning.



Americans Are Just Discovering the Americas

WHAT'S NEXT



Realigning American Geography

When I think of globalization, I think of that new line in the American imagination, which was missing. We'd always written the American history book like Hebrew, east to west, against the page, which is why we couldn't tolerate the Chinese in California. We were deeply threatened by people who came to the continent from the other direction. Those lines now that come west to east and north and south are really the beginning of our globalization, and they are not easy math.

For all the insistence on CNBC about global business, Americans are just beginning to discover the Americas, that we exist within this hemisphere. We understand business, oil in Venezuela, and that Mexico drinks more Coca-Cola than the US does. But we don't understand fully that we are a country now, not as in the Irving Berlin song, between coast and coast, but between hot and cold....The cool notion of Canada...the lure of the spice of the South. Americans now consume more hot sauce than they do catsup, which, if there is really any indication that this society is in the advance, I think that's it...

I have a great respect for George Bush at the level at which he seems to understand the north-south trajectory. I don't find it at all coincidental that when he talks about solving the energy crisis he talks about setting up electrical plants in Mexico and importing energy from Canada. He seems to have this flow that is quite different from even Bill Clinton, the president responsible for NAFTA. Clinton still belonged to Europe.

The Changing Moral Face of Latin America

If the conversion rates remain what they are now, the projection is that by

the year 2070 Latin America will be not only predominantly Protestant, but evangelical Protestant. It becomes the moral force at a time in which Americans, in our own secular moral vacuity, insist on describing the South as the region of our temptation, the place where the white powders come from, the place that is lawless. We are not used to describing that place as being where the Puritans are going

how the Dallas Cowboys, America's team, was in fact Mexico's team. They did this in Spanish. I thought to myself, I wonder who is listening to this? The Mexicans have just stolen the Dallas Cowboys.

I just don't think that we understand what's going on around us. We are desired, and we assume as a cul-

Richard Rodriguez on the Americas

to come from. Nor do I think that we really understand that within that so-called Hispanic community may come a moralistic force that is not going to be nice toward us and is going to be as judgmental as any Old Testament prophet.

"Absorbing the Stranger"

You cannot explain what is happening in the world right now without understanding the impulse to absorb the stranger. That impulse, I would argue, is one of the great annotations one must make to what Marxists say about colonialism. It begins as early as 1492, when the Indians come to the water's edge to look at Columbus. Four hundred years later, I'm watching Monday Night Football. It's a preseason game involving the Dallas Cowboys—America's team of drug dealers and wife beaters—who are in Monterrey, Mexico, a city that most Americans don't know exists. Monterrey, Mexico has more satellite dishes per capita than anywhere else in the world—at any given moment they are looking at the United States. There were 60,000 cheering Mexicans in the stands. Just before the game began, this Mexican mariachi group came out with sagging moustaches and began to sing about

ture that that's our predominance, our influence, our energy. But to be desired is also in some sense to be embraced. We don't understand how cultures can be stolen.

California: the First World Civilization

It was Karl Marx who said the California Gold Rush "would be the great modern event of civilization." What Marx understood is that for the first time in history, the entire world would come to one place. Even though the Roman Empire had gathered its known world to its center, vast parts of the world didn't come. With the discovery of gold in California it was exactly the moment that you could have the Malay, the Australian, the Scotsman, the Peruvian, the Chilean, the Chinese, the Japanese, the Frenchman, the African, all of these people converging on one point...I think he was talking about that implosion of civilization in one place, which is what we're seeing now.

The latest book by Richard Rodriguez, essayist and author of cultural memoirs, is *Brown*. It will be published by Viking in April.



Identity Shifts in an Interconnected World

I think it's a decade not to solve problems but to start thinking in a new way. There are many signs that point to that. We are having a big debate now about the identity of human beings and who we are. It's playing out in this country around the stem-cell issue. That goes much deeper than just pro-abortion; it's more complex than that. What are human beings? What is our relationship to each other? And to the unborn and born? Our whole sense of identity is

based on who we think our neighbors are—we haven't even begun to articulate that.

Beyond that, we are beginning to see that Earth itself is an "other." Plants and animals are part of our survival, too. The idea of saving species at some economic cost would have never occurred to the Victorians. But now it occurs to us that some species deserve to be here on this Earth just because they are, not for any function or purpose that serves us. That is a different inclusion in a circle.

Now we see that this whole definition of the "other" is getting problem-

What is the Truth?

The religious truths are truths for all time, so they are not open to change. Scientific truths are true until someone comes up with a better truth. They have a methodology whereby people can change their minds. That's the beauty of the scientific myth, that it operates in a contingent space. It is completely true as long as there's not a better truth. There are rules to making a better truth. It's not who has the most money, or who is most powerful, or who is the American. You can, however, make sociological arguments that would dispute every one of these points, at least in the scientific paradigm. That is why you don't have to go to war over a change in scientific truth, even a change as fundamental as Einstein's.

Scientists aren't comfortable in the realm of the sacred, but here is where I am disappointed in religion. At the moment, there are not any new voices of wisdom saying, "What is sacred?" In other words, to simply say, "it is sacred," "it is not," "it is so"—that kind of debate doesn't get us anywhere. Religion has it right that something is sacred, but what is it that is sacred? That's where the redefinition of who we are has to take place...I see people groping and yearning for it. I rather doubt we'll get the full articulation in ten years, but a lot of people are trying.

Betty Sue Flowers is the director of the Lyndon Baines Johnson Presidential Library in Austin, Texas. She is the author of nine books, including several collaborations on myth with Bill Moyers.

Betty Sue Flowers on Identity and Spirituality

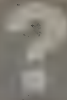
shifting in the same way that the identity of human beings shifted in the nineteenth century when we realized we were descended from the apes. That is a huge change in human identity....

In the past, almost all cultures have developed two different sets of ethics: ethics for the citizens and ethics for the barbarians. You can murder your enemies, but not your family or friends. The sense of identity, the whole issue of who are our neighbors and our kin is beginning to come up in a new way again. Every time there's a shift in ethics, there's a shift in the answer to that question and you can no longer define some people as outside the circle....So as the circle of inclusion gets wider, you have to behave differently. If the circle of true, developed humanity is widened to include women, slaves, and others, your behavior will be different, and that has economic consequences. That was the case with slavery. The economies in the North and the South were built on slavery. What our economies are built on is

atic. What really is "other"? It's all one big system. If we can't make something "other," how do we get by in the world? We have always been able to do that—it's how we've defined ourselves.

The Search for a New Spirituality and Religion

One of the hallmarks of a new religion is that it allows people to talk about something that was maybe only dimly intuitive before. We don't have language for the phenomenon of emergence. We don't have ethics around it; we don't even have a descriptive language. So it would take a lot of people who come together feeling free to talk about some of the experiences they have had for the language to be developed. Then you might have what might be a new religion. It's far from that at the moment; it's almost like a groping sense. When you talk to people about a new spirituality that is different from religion, most people will nod their heads yes. But I don't think we can articulate yet what that is.



The Most Important Thing Is the Comics

WHAT'S NEXT



Opening the Window of Virtual Reality

The development of immensely more sophisticated virtual realities introduces a new form of complexity to our society. It's not just another game. I was involved twelve years ago in the development of Jaron Lanier's head-mounted VR displays, and at a very crude level, I found them immensely intoxicating. I think these will have a truly significant impact on the fabric of societies, just as the Internet captures a significant population and does things that are not healthy for their physical bodies, their somatic systems, their relationships to the people immediately around them. That phenomenon is growing....We are an addictive species....The Internet and virtual reality represent wildcards in the future fabric of a world society.

Those virtual reality journeys can and almost certainly will produce phenomena having to do with the way we understand ourselves, the way we understand art, the way we experience the universe. I think it may affect our spirituality in profound ways, so that you're now on the edge of a precipice that we simply have no experience with. We don't know how to calculate its impact.

The Old-fashioned Appeal of Star Trek

Well, what the hell keeps *Star Trek* alive? The reasons go beyond the stories, the different configurations, or how well it's done. It's about the longing for a sense of survival of the species, but improved somehow. It's also an extension of the same simplistic man, Gene Roddenberry, who presented a moral framework that said, "We will carry a value system that's very recognizable. You can't interfere

with another species at a lower level." That the notion of carrying an ethical system with you—beyond Earth and beyond your individual lifespan—is an old-fashioned idea and very moving and reassuring. It resonates with people.

The Kids Are All Right

I don't see a significant difference in the intelligence, receptiveness, imagination, or inquisitiveness of the young compared to my own generation. Layers of mass culture coat all of us. My understanding of evolution is that it will take a lot more than MTV, television, movies, and video games to destroy or misalign our craniums in a way that's significant. If, for example, young people tend to be less polite than their grandparents were, they may also be more inquisitive and less convention-bound. As an aging man, it's easier for me if the young people say, "Yes, sir," and "No, sir." But that is not an indication of their receptivity to fresh ideas or how well they think. This is very hard for older people to adjust to, but I'm not deluded by it at all.

Film as a Universal Form

That good films are coming out of Iran, Korea, or mainland China seems extraordinary. I remember when the picture *Rashomon* came from Japan in the early 1950s. I understood that once the Japanese could make *Rashomon*, they were going to be part of my world in a way that I could not anticipate or articulate. Remember, Japan was the most devastated country in World War II, in terms of the atomic ruin of major cities and the destruction of the old order. That this obscure, beaten, ruined country could produce such a work set off a signal in the back of my head.

Iran, Iceland, India, and countries in Africa that I can hardly name are producing film now. It's no longer the province of the Western industrial countries. The making of film is a universal form—there are films you can export that will be understood, that will move people in

Alex Singer on Entertainment

another society, and that will generate fresh ideas or fresh views of ideas. That's what *Rashomon* did.

The Wisdom of the Comic Page

The most important thing to me in the paper, I'm almost ashamed to say, is the comics. The comics tell you what can be talked about, what can be articulated. On any given day, Heisenberg's principle of uncertainty, string theory, the illiteracy of a president, and the sexual needs of a middle-aged woman can be the daily diet of the comic pages in a third-rate paper. Now, I regard that as some kind of proof that society isn't hopeless, isn't beyond the possibility of both salvation and improvement. That's very heartening.

Alex Singer is a long-time TV and film director responsible for many *Star Trek* episodes.



**Making Space
Exploration
Commercially Viable**

It's a problem of whether you can find a cheap way of getting into space. I think that's essentially what it depends on. At the moment, just getting cargo into space costs you around \$10,000 a pound. Whether it's

Freeman Dyson on Space

small or big, it's about the same price.

I would say it needs to be around \$100 a pound. A factor of a hundred cheaper would make a huge difference. There's nothing in the laws of physics that says you couldn't do that. We just haven't been clever enough to figure out how to put together the machines....Getting to space has to be in the range of a couple of million dollars rather than a couple of billion dollars if it's to be accessible.

The Search for Intelligent Life

I've always been a strong advocate of searching for aliens. There's a delightful little project just starting up here at Princeton that involves searching for aliens on the optical band, which hasn't been done much. Most of the searching has been done with radio. We're looking for laser flashes, which could be a very good way of communicating over large distances. You can make nanosecond laser pulses. We could already do this with existing lasers so that for one nanosecond it's brighter than the sun. If you want to shine it at some colleague halfway across the galaxy and transmit a message, he can easily see your signal even against the background of the sun. We're looking for those. The project is called OSETI. That's for optical

SETI, which means search for extraterrestrial intelligence.

There's the general expectation that if we do find aliens that have any technology at all, they'll be millions of years ahead of us. I think that's reasonable. Whoever they are, they probably know a great many things that we don't know. Of course, the danger is that if they know it all, then we'd lose self-confidence. And this is of course the classic situation when primitive society comes into contact with an advanced civilization, that the primitive society tends to suffer very badly. You hope that won't happen.

Inventing a Space Highway

Leik Myrabo is a professor of electrical engineering at Rensselaer Polytechnic. He actually builds little model spacecraft that fly up a laser beam. It works very nicely. This is just a toy, but I think that's the most promising technology for cheap space travel.

The beam is the power source. Actually it's a pulsed laser that goes at about 10,000 pulses a second. The spacecraft is a little thing that looks like a fish. It has a mirror around its waist, which focuses the light backward so that the laser pulse comes to a focus behind the fish. It makes a little explosion in the air, and that drives the fish up the beam.

It's not really a model spacecraft, it's just a demonstration of the principle. I compare it to the Wright brothers' flight in 1903. It's about on that level. It demonstrates that you can get off the ground.

This was a 10-kilowatt laser. This toy model weighed about two ounces. If you scale that up 100,000 times, you're talking about a gigawatt laser, which is not at all unreasonable. If the laser were used as a public highway, it could be very cost effective. It would

just point up into the sky. Anyone could pay the toll and up she goes. Of course, the whole trick is to have enough traffic to pay for the laser....

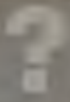
You'd have to have a steady stream of customers standing in line, one going up every five minutes, to make it really cheap. It could probably be as cheap as a commercial airline. Of course, a large airport costs you a few billion dollars, which is just about the same as the laser.

The problem is, of course, where will all the spacecraft go? You've got to have someplace to go before you can [make it viable]. The governments probably have to get the thing started. I would say it would take fifty years to get the thing technically developed and maybe 100 years before it becomes an everyday commercial operation—I think it could be a big deal.

The Scientific Frontier

My position is that science is just an unending frontier. Every time you make a big discovery, it opens two more questions. I don't at all agree that once you have a set of equations to describe the universe, we're done. A good example of that is general relativity. Einstein had the equations right; it was a beautiful theory. It explains gravitation, but he never believed in black holes and he wasn't even interested in finding out....Having the basic equations is just a beginning. Finding the solutions is where nature really becomes creative.

Freeman Dyson, long associated with Princeton's Institute for Advanced Study, is one of the preeminent physicists of the last hundred years.



A Green Transformation of Spirit?

WHAT'S NEXT



Environmentalism, like almost everything else, does not work by the Julian calendar. The big shift took place from 1986 to 1988. The next decade will refine, define, and combine the consequences of these events, not create whole new scenarios.

In 1986, Chernobyl blew. Global atmospheric made it abundantly clear that thinking globally and acting locally were not enough. We had to act and think both locally and globally. Chernobyl was water-cooled; we could no longer think that energy and water flows were separate, or that energy policy and water policy were discrete channels of thought.

Chernobyl taught the dangers of unaccountable government and suppressed info, helping to fuse the environmental and democracy movements to achieve greater transparency, accountability, and participation. In the same time period, the Danube movement against further channelization and dams helped Hungary and Czechoslovakia move "greenness" and democracy into mainstream politics.

Much of the world no longer vigorously distinguishes among environmentalism, democracy, empowering marginalized communities, and promoting civil and women's rights. The new Europe, with its green parties, is the region to watch. What the EU turns into law is another indicator of the fate of the Earth. The US lags pitifully in holistic imagination.

Cashflows are a great challenge to the green movement. Major markets in Asia and Europe reject genetically modified soybeans. If the Chicago Board of Trade (CBOT) accepts a separate listing for conventional v. GMO soybeans, we will see a major change in the commodity markets and farming. If a third listing, for organic soybeans, makes it to the CBOT, then a

truly wildcard scenario of a "green future" will transform the WTO, operationalize senses of fair v. free trade, and enhance shareholder/consumer choices.

After stimulating redesign of almost every major sector of the materials economy (e.g., harvesting minerals and oil, producing paper, recycling office materials, envisioning a nontoxic industrial chemistry), the environmental movement is poised to influence cashflows. In 1986, it forced Congress to pass a law that taxpayer funds given to the World Bank for its megaprojects are subject to environmental and social impact reviews. The World Bank has backed off on a few loans and investments and completely altered its rhetoric. Watch the World Bank and other multilateral lenders for indicators of how much "development without harm" has moved the globalist bureaucracy.

Greenpeace has been effective in advising potential stock buyers of hidden environmental costs that a business could suffer. Major brokers listen to their warnings. A strong shareholder movement would indicate a major change in the world of business, especially if pension funds turn from amoral to green.

In 1987 the embryo of this change was found in the Brundlandt Report, which coined "sustainability." One of those iconic words like liberty, equality, and solidarity, it shifts shape with context. But if it remains strongly supported, we will see a new, much wider path for environmentalism. No longer is the argument centered on doom-gloom (the population bomb, species holocaust, nuclear winter) but also around "positive futures." "Sustainability" is a net that can include labor unions, housewives and kids, medical doctors and nurses,

mayors, economists, peasant leaders, companies making the transition to renewables, etc.

To Amory Lovins's "waste reduces profits" will be added a slew of new slogans. The enviro health sector has tackled poisonous metals, persistent organic pollutants, waterborne

Peter Warshall on the Environment

vectors, resistant bacteria in livestock, effluents from pharmaceutical plants, and endocrine disruptors—to name a few. Environmental health is a logical banner for a truly nongovernmental globallocal solidarity that can tie North and South.

In 1987, religious leaders met in Assisi and hinted for the first time that destroying the Earth for financial gain might be sinful. The environmental movement has already carried the principle of nonviolence. It has accomplished more change in the last fifty years, without a body count, than any other "-ism"—communism, fascism, colonialism, or neoliberal economics. It has had its martyrs (Chico Mendez, Karen Silkwood, Dian Fossey) and has destroyed some property, but it has never organized an army or killed for its cause. If enviro/sustainability teachings catch the imagination of young members of churches, synagogues, mosques, and humanistic organizations, we may witness a spiritual transformation like the movements to end slavery or women's inequality.

Peter Warshall is *Whole Earth's* editor at large.



HANK KRANSLER, FROM ONE FLEW OVER THE CUCKOO'S NEST

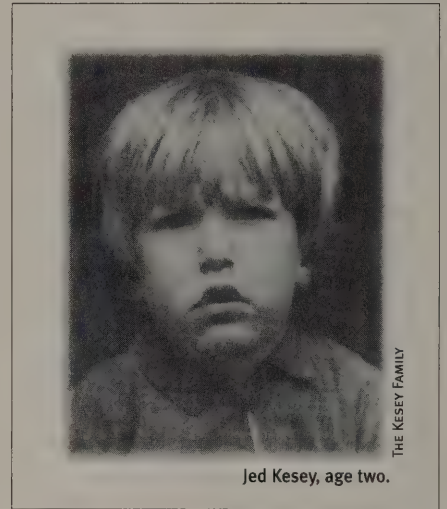
KEN KESEY: FURTHUR

Ken Kesey, author of *One Flew Over the Cuckoo's Nest*, *Sometimes a Great Notion*, and *Sailor Song*; athlete; farmer; father; and Ur-Prankster; embodied and engendered much of the spirit in which *Whole Earth* was born. On his death in November, our firmament dimmed a little. Stewart Brand attended Kesey's burial in Oregon. We're grateful for his allowing us to reprint the account he delivered at the memorial service in San Francisco in early December.

We felt the best way we could honor Ken Kesey would be to reprint some of his most memorable contributions to our publications. "Burying Jed Kesey" is from the Summer 1984 *CoEvolution Quarterly*. It's a letter to friends Wendell Berry, Larry McMurtry, Ed McLanahan, Bob Stone, and Gurney Norman after

the death of 20-year-old Jed Kesey in the crash of a van carrying members of the University of Oregon wrestling team. "I sincerely hope," Ken Kesey wrote, "that I do not—as Richard II worries—'play the wanton with my woes,' by this display of my family's private grief and publication of my personal correspondence. I mean only to suggest a path for others wandering in similar pain. We've all got a lot of dying ahead of us. We might as well learn how to go about it."

The piece that follows it, introduced by Stewart Brand, ran first in *The Last Supplement to the Whole Earth Catalog*, as did "I've used Cornstarch on my balls for years!" (p. 82). —MKS



THE KESEY FAMILY

Jed Kesey, age two.

Kesey bestrode the cultural Bay Area like a colossus, but before his time here and all his time after, he was completely a creature of Oregon. I was privileged to attend his burial there last week, and here's what I saw. It was the least maudlin memorial service and funeral I've ever been to—his family and community loved him and shared his disinterest in sentimentality. At the burial at his farm his corpse was right there in front of us. People filed by and studied it, and put things in the coffin with him, slipped joints into his pockets.

The grave was next to his son Jed's. It was not six feet deep. They'd been working on it for three days. It was like looking into a mine shaft. Well, his friends nailed the coffin lid shut, and then they lowered it down. The youngest kids were asked to shovel in the first of the dirt. I happened to be close by, so my turn to help came pretty quickly. I got a shovel full of that good central Oregon agricultural soil and heaved it way down there onto the coffin. It made the deepest boom! I thought about what it must have sounded like from inside.

I mentioned that to Kesey's son Zane a little later, and Zane told me that when they buried Jed, his father told him why they usually put flowers on a coffin before it's lowered. "You need the flowers to soften the sound of the clods as they fall."

Zane added, "I thought those flowers that everybody brought looked nice where they were, so I let them be." It occurred to me that it may also have been Zane's way of honoring his father. Kesey might have wanted to hear that boom. It was just the sort of thing that would have appealed to his absolutely fearless honesty—which is what he taught us all. —Stewart Brand

Burying Jed Kesey

by Ken Kesey

It was the toughest thing any of us has ever had to go through, harder than jail, or my dad's death, or an OD on STP, yet it also had and always will have a decided glory. Partly, I think, because Jed was such a good kid, very loving and very loved, and the power of his being carried us through a lot of the ache. But there was also the support we got, from friends and family, from teachers and coaches and schoolmates. Without this support I don't think we would have attempted the kind of funeral we had, or plunged into the activism prompted by the circumstances of the accident.

It's the funeral that I mainly want to share, because I think you guys and your constituency of readers should know that this homemade ceremony is legally possible. All you need is the land, the determination, and the family. Here are parts of the letters:

Dear Wendell and Larry and Ed and Bob and Gurney:

Partners, it's been a bitch.

I've got to write and tell somebody about some stuff and, like I long ago told Larry, you're the best backboard I know. So indulge me a little; I am but hurt.

We built the box ourselves (George Walker, mainly) and Zane and Jed's friends and frat brothers dug the hole in a nice spot between the chicken house and the pond. Page found the stone and designed the etching. You would have been proud, Wendell, especially of the box—clear pine pegged together and trimmed with redwood. The handles of thick hemp rope. And you, Ed, would have appreciated the lining. It was a piece of Tibetan brocade given Mountain Girl by Owsley fifteen years ago, gilt and silver and russet phoenixbird patterns, unfurling in flames. And last month, Bob, Zane was goose hunting in the field across the road and killed a snow goose. I told him be sure to save the down. Susan Butkovitch covered this in white silk for the pillow while Faye and MG and Gretch and Candace stitched and stapled the brocade into the box.

It was a double-pretty day, like winter holding its breath, giving us a break. About 300 people stood around and sung from the little hymnbooks that Diane Kesey had Xeroxed—"Everlasting Arms," "Sweet Hour of Prayer," "In the Garden" and so forth. With all my cousins leading the singing and Dale on his fiddle. While we were singing "Blue Eyes Crying in the Rain," Zane and Kit and the neighbor boys that have grown up with all of us carried the box to the hole. The preacher is also the Pleasant Hill School superintendent and has

known our kids since kindergarten. I learned a lot about Jed that I'd either forgotten or never known—like his being a member of the National Honor Society and finishing sixth in a class of more than a hundred.

We sung some more. People filed by and dropped stuff in on Jed. I put in that silver whistle I used to wear with the Hopi cross soldered on it. One of our frat brothers put in a quartz watch guaranteed to keep beeping every fifteen minutes for five years. Faye put in a snapshot of her and I standing with a pitchfork all Grantwoodesque in front of the old bus. Paul Foster put in the little leather-bound New Testament given him by his father who had carried it



Jed Kesey.

during his sixty-five years as a minister. Paul Sawyer read from *Leaves of Grass* while the boys each hammered in the one nail they had remembered to put in their pockets. The Betas formed a circle and passed the loving cup around (a ritual our fraternity generally uses when a member is leaving the circle to become engaged). (Jed and Zane and I are all members, y'unnerstand, not to mention Hagen) and the boys lowered the box with these ropes George had cut and braided. Zane and I tossed in the first shovelfuls. It sounded like the first thunderclaps of Revelations...

But it's an earlier scene I want to describe for you all, as writers and friends and fathers...up at the hospital, in cold grey Spokane:

He's finally started moving a little.

Zane and I had been carrying plastic bags of snow to pack his head in trying to stop the swelling that all the doctors told us would follow as blood poured to the bruised brain. And we noticed some reaction to the cold. And the snow I brushed across his lips to ease the bloody parch where the tubes ran in caused him to roll his arms a little. Then more. Then too much, with the little monitor lights bleeping faster and faster, and I ran to the phone to call the motel where I had just sent most of the family for some rest.

"You guys better get back over here! He's either going or coming."

Everybody was there in less than five minutes—Chuck and Sue, Kit and Zane, Shan and her fiancé Jay, Jay's dad Irby, Sheryl and her husband Bill, my mom, Faye...my whole family except for my dead daddy and grandma Smith down with age and Alzheimer's. Jed's leg was shaking with the force of his heartbeat. Kit and Zane tried to hold it. He was starting to go into seizures, like the neurosurgeon had predicted.

Up till this time everybody had been exhorting him to "hang on, Old Timer. Stick it out. This thing can't pin you. You're too tough, too brave. Sure it hurts but you can pull through it. Just grit your teeth and hang on." Now we could see him trying, fighting. We could see it in his clenching fists, his threshing legs. And then aw Jesus we saw it in his face. The peacefully swollen unconscious blank suddenly was filled with expression. He came back in. He checked it out, and he saw better than we could begin to imagine how terribly hurt he was. His poor face grimaced with pain. His purple brow knitted and his teeth actually did try to clench on the tubes.

And then, O my old buddies, he cried. The doctors had already told us in every gentle way they could that he was brain dead, gone for good, but we all saw it... the quick flickerback of consciousness, the awful hurt being realized, the tears saying, "I don't think I can do 'er this time, dad. I'm sorry, I truly am..."

And everybody said, "It's okay, ol Jedderdink. You know better than we do. Breathe easy. Go ahead on. We'll catch

you later down the line.”

His threshing stopped. His face went blank again. I thought of Old Jack, Wendell, ungripping his hands, letting his fields finally go.

The phone rang in the nurses' quarters. It was the doctor for me. He had just appraised all the latest readouts on the monitors. “Your son is essentially dead, Mr. Kesey. I'm very sorry.”

And the sorrow rung absolutely honest. I said something. Zane picked up the extension and we watched each other while the voice explained the phenomena. We said we saw it also, and were not surprised. Thank you....

Then the doctor asked a strange thing. He wanted to know what kind of kid Jed was. Zane and I both demanded what he meant. He said he was wondering how Jed would have felt about being an organ donor. Our hearts both jumped.

“He would love it! Jed's always been as generous as they come. Take whatever you can use!”

The doctor waited for our elation to ease down, then told us that to take the kidneys they had to take them before the life support was turned off. Did we understand? After a while we told him we did.

So Faye and I had to sign five copies apiece, on a cold formica countertop, while the machine pumped out the little “beep...beep...beep...” in the dim tangle of technology behind us. In all my life, waking and dreaming, I've never imagined anything harder.

Everybody went in and told him goodbye, kissed his broken nose, shook his hand, squeezed his big old hairy foot...headed down the corridor. Somebody said it might be a good idea to get a scrip for some kind of downers. We'd all been up for about 40 hours, either in the chapel praying like maniacs, or at his bedside talking to him. We didn't know if we could sleep.

Chuck and I walked back to the intensive care ward to ask. All the doctors were there, bent over a long list, phoning numbers, matching blood types, ordering nurses...in such a hurry they hardly had time to offer sympathy. Busy, and justly so. But the nurses, the nurses

bent over their clipboards, could barely see to fill out the forms.

They phoned the hotel about an hour later to tell us it was over, and that the kidneys were in perfect shape. That was about four in the morning. They phoned again a little after six to say that the kidneys were already in two young somebodies.

What a world.

We've heard since that they used twelve things out of him, including corneas. And the redwinged blackbirds sing in the budding greengage plumtree.

With love,

Ken

P.S. When Jed's wallet was finally sorted out of the debris and confusion of the wreck it was discovered that he had already provided for such a situation. He had signed the place on his driver's license indicating that he wanted to be an organ donor in the event of etc., etc.

One man gathers what another man spills...kk

Ken Kesey wrote about Jed once before in a *Whole Earth* publication. It was Spring of 1971, *The Last Supplement to the Whole Earth Catalog*, which Kesey was guest editing with Paul Krassner. He was reviewing *The Bible* (“All of it. All the rest of your life.”). It was a three-page review, with Jed at the pivot...
—Stewart Brand

It's about four years ago in my hometown of Springfield. Summer. Sundown. We've just had a family supper at my folks' house and I'm driving my mom's Bonneville over to my brother's creamery. In the car with me are my daughter Shannon, my youngest son Jed, and my dog Pretzels. The radio is playing and Shannon is prattling plans and the windows are down to the full-ripened Oregon day....

(I've told this tale a lot since, and each telling has drained a little from the event. I've tried to be judicious in my allotment of the tellings because of this depletion. I hope I can tell it this time

for good and save what's left for my own lost times ahead.)

We're traveling on old west Q Street, which used to be the main artery to Eugene before the freeway came in. The house where my mother and father and brother and I lived all our school years until Chuck and I left to get married is just up ahead, dwarfed now by the freeway that came by a few years ago like a sudden river of cement and Chevies. This was the river that forced my folks to seek higher ground in the tract house where we just ate. I never lived in the tract house so the old house up ahead there on West Q is still what I consider home in my sentimental mind. I used to lie awake late across my bed with my front teeth resting on my windowsill until the sill was gnawed pointless. I could see past the raccoon cage, the blinking radio tower of KEED and beyond that the friendly outline of the Couburg hills where a little logging train used to come from a few times a week at 11:45 P.M. and then fewer times and fewer times until, well, I guess it's been clear back in high school I can last remember hearing that whistle, lying there blinking out past the coon cage at my mysterious futures, thinking, “Someday I'll go someplace on that train....” But it stopped running and I grew up and now, here it is, ten feet away coming across the road and the Bonneville is already on the tracks and for once added power is important and I tromp at least the front half of the car across before that awful black noise running on a track red with rusted neglect ripped away everything from the backdoor back and sent the rest spinning on down West Q.

Shannon was crying and bloody. The Walkers, our old neighbors, were helping her from the mangled door. My head hurt but I felt whole. On the floor my little dog whimpered, her teeth through her lip. The train was stopping somewhere behind me. Where was Jed?

I picked him up and carried him into the Walkers'. He didn't look hurt anywhere but oh he was such desolate heaviness in my arms. I sat down in a chair, holding him. And he sighed, a curiously familiar sigh though I'd never heard

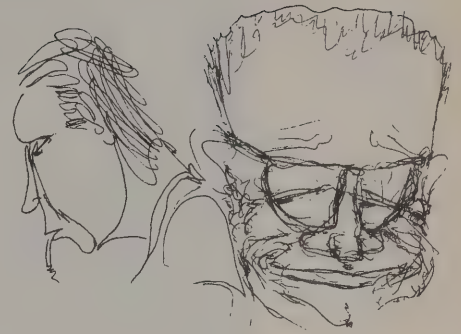
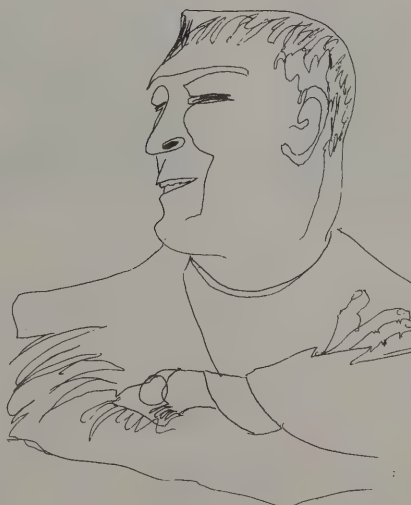
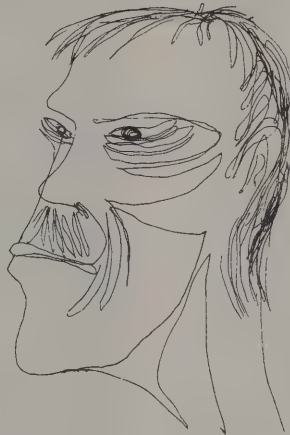
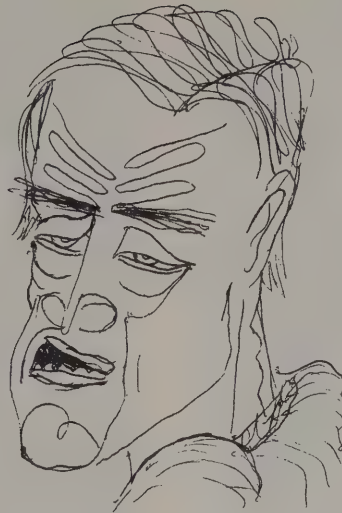
another like it before, and I felt the life go out of him as though that soft sound were wings assigned to bear its essence gently away. My ear found no beating at his chest. I looked up. There I sat across the room in the Walkers' big dining-room mirror holding my dead son in my arms.

In the middle of my forehead a two-bit-sized bone plug had been punched neatly from my skull and hung on a piece of skin like an open trap door; the hole and the plug joined thus formed a bleeding figure eight. I blinked at my garish image and thought, "if anything ever counts, this counts." then I closed my eyes on my reflection and called aloud:

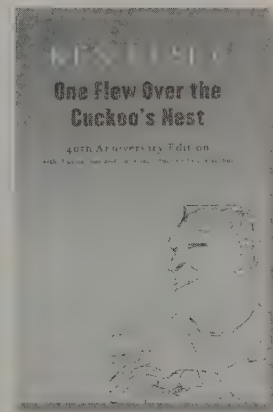
"O dear Lord, please don't let him die."

Then things became completely calm. Shannon was trying to hush her crying; the Walkers stopped rushing about and talking and waited...the frantic phoning paused (things will make a space)...then I knew what to do. Opening my eyes I leaned back to Jed and began to give him mouth-to-mouth resuscitation. The ambulance drivers came in but made no move to interrupt me, though one of them reached down and neatly popped the plug back in my forehead while I worked over Jed. Finally Jed sighed again, the same soft wings except this time they bore the life back into its sacred vessel.

I knew I had participated in a miracle and I was absolutely amazed. As the days went by and Jed drew out of danger in the hospital I found that it wasn't the miracle that had amazed me. That returning sigh will sound through all the rest of my life and I will be ever thankful. What amazed me, though, was that when the chips were down I knew where to call, and that I knew Who answered. I had interceded in my son's behalf, and talked the powers into letting us have him for a time more, Thank God.

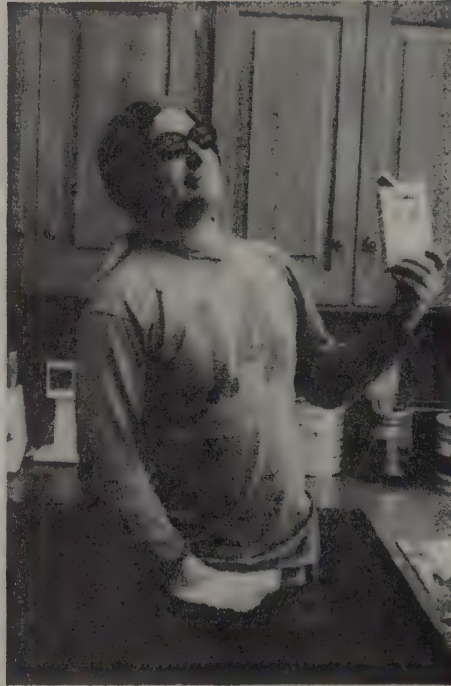


Forget the film version and Jack Nicholson's star performance as Randle P. McMurphy. Kesey's muscular prose and driving narrative still make this a page-turner no matter how many times you've seen the movie. A potent delineation of the struggle against institutional dehumanization, *One Flew Over the Cuckoo's Nest* should be required reading for young adults. For older folks, this beautiful new edition, illustrated with Kesey's own sketches from his days as a nurse's aide in the same mental ward (where he turned on to government LSD) deserves a place on the shelf where you keep your inspiration. —SG



One Flew Over the Cuckoo's Nest

Ken Kesey
2002 (40th anniversary ed., with illustrations and a new introduction by the author); 281 pp.
\$24.95
Viking



"I've used Cornstarch on my balls for years!"

states noted author and theologian, Ken Kesey. "Y'know how it is when you're swarthy anyway and maybe nervous like on a long freeway drive or say you're in court where you can't unzip to air things out, and your clammy old nuts stick to your legs? Well, a little handful of plain old cornstarch in the morning will keep things dry and sliding the whole hot day long. Works better than talcum and you don't smell like a nursery. Also good for underarms, feet, pulling on neoprene wet suits and soothing babies bottoms. And it's biodegradable."

—from *The Last Supplement to the Whole Earth Catalog*, 1971

The Merry Pranksters' HOUSE BAND

Garcia An American Life

Blair Jackson
1999; 498 pp.
\$34.95. Viking

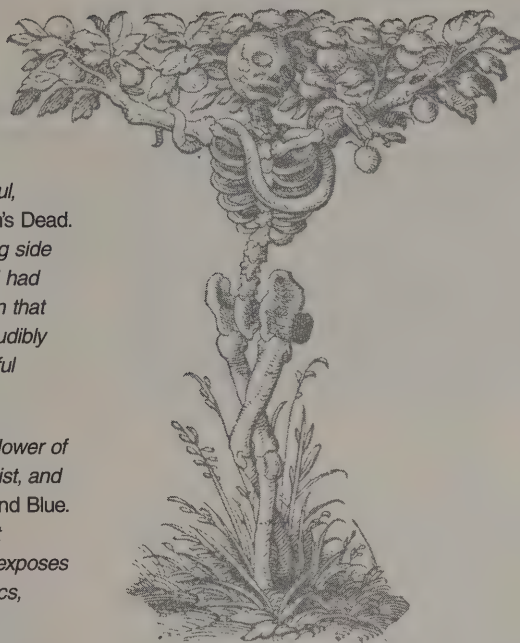
I fell asleep one night in 1972 in Kabul, Afghanistan, listening to Workingman's Dead. The record player arm kept repeating side one all night long. When I woke up, I had committed to memory every song on that side of the album, and I had been audibly and psychically moved by the Grateful Dead's music.

Blair Jackson is also a dedicated follower of the Dead, a prominent music journalist, and editor of the fanzine Dupree's Diamond Blue. His book is the definitive book about Garcia's relationship to his music. It exposes Jerry and the Dead as music maniacs, with a real commitment to their craft.

Jackson's deeply committed analysis of the prose and melodies that Robert Hunter and Jerry created is the true essence of this biography. His account of how their collaboration worked makes it as compelling as the story of the collaboration between Van Gogh and Gauguin. —David Guyer-Stevens

“It was in Rio Nido too, that the Dead's most famous improvisational vehicle, “Dark Star,” was born. “I was in my cabin,” Hunter recalled. “They were rehearsing in the hall...and you could hear from there. I heard the music and just started writing ‘Dark Star’ lying on my bed. I wrote the first half of it and I went in and I think I handed what I'd written to Jerry. He said, ‘Oh this will fit just fine,’ and he started singing it. That's true collaboration. I mean, I actually heard the Grateful Dead playing and those are the words it seemed to be saying. I'm going to make a big stretch here and say the music seemed to be saying that and I transcribed it.

“What he really loved about [diving] was the freedom of the water,” daughter Annabelle says. “He and I went a couple of times together. You spend most of your life overweight and kind of low energy and doing bad things to yourself, and then you get in the water and you can pretty much do whatever you want and go wherever you want without worrying about the physical aspects. I remember him saying many times ‘It's better than taking drugs...It's just incredibly beautiful.’”



The Deadhead's Taping Compendium An In-Depth Guide to the Music of the Grateful Dead on Tape

Michael M. Getz and John A. Dwork
Vol. I (1959–1974). 1998; 598 pp. \$29.95
Vol. II (1975–1985). 1999; 624 pp. \$32.95
Vol. III (1986–1995). 2000; 711 pp. \$35
Henry Holt and Co.

The Deadhead's Taping Compendium is a work of art and complete record of the history of audience recording of those legendary concerts. It covers the musical history with essays, interviews, great color photos, and reviews of shows, often song by song. It is also a detailed exposure to the phenomenal underground movement of taping, which originated at Grateful Dead concerts. —DGS

“3/12/66. Danish Hall, Los Angeles, California. Pico Acid Test. This tape is unique in that it represents the most music we have in circulation from any of the Acid Tests—almost a half hour toward the end of the period of time when the Dead were woodshedding in L.A. The Pico Acid Test happened after Kesey had fled to Mexico.... Sound quality is poor, especially at first; there is a boomy, muffled feeling, and several distinct shifts in the mix happen early in the tape. But a few minutes in, the mix is settled, your ears have adjusted—and this is an actual Acid Test, so they're probably high, but damn they sound good. —NICK MERRIWEATHER

Deadhead Social Science You Ain't Gonna Learn What You Don't Want to Know

Rebecca Adams and Robert Sardiello, eds.
2000; 299 pp.
\$24.95
AltaMira Press

Growing up in Asia, accustomed to a diversity of cultures, ethnicities, and values, I found my return to mainstream America in the 1970s empty. I remember walking by a fire on the sidewalk in Berkeley after my first Grateful Dead show and feeling very much at home. At the time I thought that this was the case of an undocumented tribe, and that someone should take it to that level academically. Rebecca Adams has done a great job of that in this book.

Adams designed a course based on attending a series of Grateful Dead concerts, and then having the students conduct a sociological analysis of the Deadheads. Along the way, Adams describes a role switch—the teacher is led into new perceptions of herself and the world by her students. —DGS

“When Deadheads attend concerts, they leave their mainstream identities behind, and efforts to claim authority or to exert influence by invoking these external statuses are negatively sanctioned. Although there is a status hierarchy among Deadheads, it is based on experience within the subculture and not on external credentials....Attempts by researchers or teachers to claim higher status than subjects or students and even attempts to assert these role distinctions are simply not supported by subcultural norms.

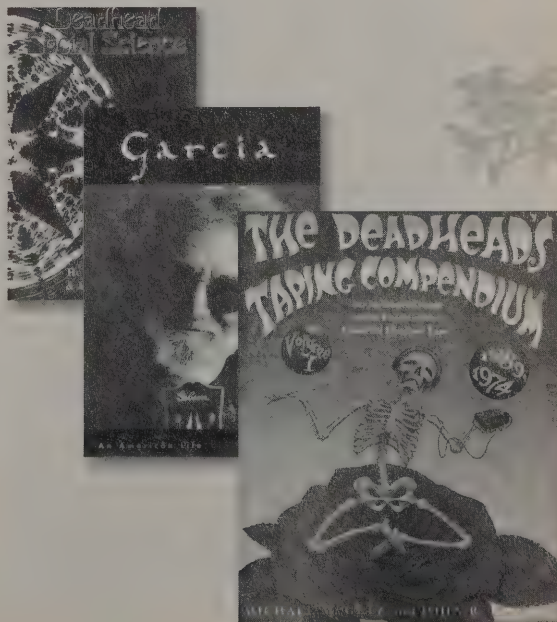




ILLUSTRATION BY GARY RAY

We're All Tools of DNA The Cosmic Serpent

Jeremy Narby, living with native groups in the Peruvian jungle, kept running into serious people who said that they learned very complicated things from talking to the plants (like designing and maintaining indigenous gardens, polycultural masterpieces containing up to seventy different plant species that were mixed chaotically, but never innocently). The plants told you how to do it. You only needed a little hallucinogenic brew to start the conversation.

Most scientists would have discounted such ideas as the mystical musings of uneducated "natives." Although Narby was somewhat disposed to this position, he decided to try it for himself. Thus began a rather extraordinary exploration that ultimately led him to microbiology, DNA, and some very provocative ideas about how intelligence and consciousness may come into being.

Breakthroughs in science often occur when a problem is seen from an unconventional perspective. Narby's journey is that of a very thoughtful, curious outsider. He finds potentially significant new meaning from many areas of physical and social science and weaves them together into a plausible argument that DNA is alive and intelligent and that humans are but specially designed vehicles for its/their proliferation.

—John Petersen (courtesy GBN)

"A single bacterium contains approximately ten million units of genetic information, whereas a microscopic fungus contains a billion units. In a mere handful of soil, there are approximately ten billion bacteria and one million fungi. This means that there is more order, and information, in a handful of earth than there is on the surfaces of all the other known planets combined. The information contained in DNA makes the difference between life and inert matter.

We're All Tools of Plants The Botany of Desire

Michael Pollan reverses the usual human-centric perspective, asking what domestication has meant to the apple tree, the potato, the cannabis plant, and the tulip. He sees our intertwined histories as a coevolutionary partnership in which plants get their genes spread around by exploiting our taste for sweetness, our eye for beauty, and our occasional need to get high.

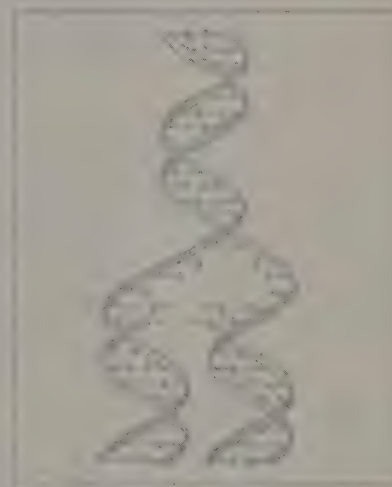
The *Botany of Desire* covers fascinating ground, from the tulip-viewing parties of an eighteenth-century Turkish sultan to an Idaho farmer's bitter critique of corporate agriculture.

A passionate gardener, Pollan grew his own genetically-engineered New Leaf potatoes; his treatment of the GIM controversy is one of the best, most nuanced I've seen. (John Chapman, the legendary Johnny Appleseed, emerges here as a somehow typically American blend of entrepreneur and mystic, preaching an esoteric gospel as he brought the makings for hard cider to a thirsty frontier. Chapman believed grafting—the orchardist's solution to the complexities of apple genetics—violated a tree's divine essence. You can only imagine his reaction to the idea of adding a silkworm gene to give apples resistance to fire blight.) —Joe Eaton

"Even evolution evolves. About ten thousand years ago the world witnessed a second flowering of plant diversity that we would come to call, somewhat self-centeredly, "the invention of agriculture." A group of angiosperms refined their basic put-the-animals-to-work strategy to take advantage of one particular animal that had evolved not only to move freely around the earth, but to think and trade complicated thoughts. These plants hit on a remarkably clever strategy: getting us to move and think for them. Now came edible grasses (such as wheat and corn) that induced humans to cut down vast forests to make more room for them; flowers

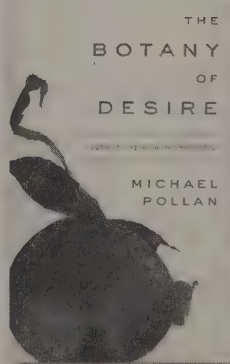
whose beauty would transfix whole cultures; plants so compelling and useful and tasty they would inspire human beings to seed, transport, extol, and even write books about them.

"In the process of changing the land, Chapman also changed the apple—or rather, made it possible for the apple to change itself. If Americans like Chapman had planted only grafted trees—if Americans had eaten rather than drunk their apples—the apple would not have been able to remake itself and thereby adapt to its new home. It was the seeds, and the cider, that gave the apple the opportunity to discover by trial and error the precise combination of traits required to prosper in the New World. From Chapman's vast planting of nameless cider apple seeds came some of the great American cultivars of the nineteenth century.



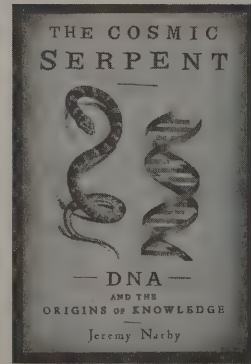
The Botany of Desire A Plant's-Eye View of the World

Michael Pollan
2001; 271 pp.
\$24.95
Random House



The Cosmic Serpent DNA and the Origins of Knowledge

Jeremy Narby
1998; 257 pp.
\$12.95
Jeremy P. Tarcher/Putnam

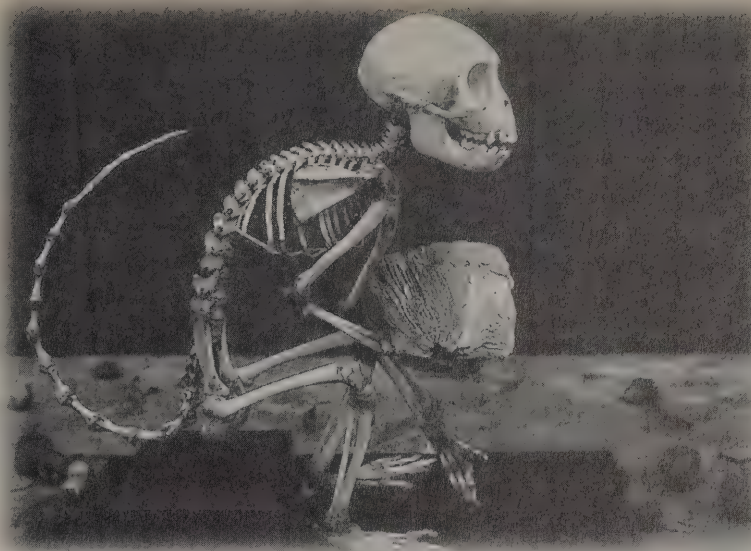


Art Meets Science

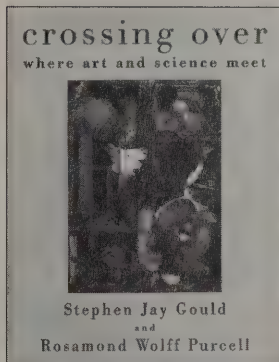
This is the third book-length collaboration between photographer/artist Rosamond Wolff Purcell and scientist/essayist extraordinaire Stephen Jay Gould (See *Whole Earth*, Fall 2000). They understand the symbiotic relationship of art and science. Artists rely on the structure provided by laws of kinetics and pattern and chemistry as much as on chance. Scientists rely on the accumulation of predictable, repeatable results as well as the gigantic, nonlinear, crazy-seeming, leap of faith "AHA!" experiences we usually attribute to artists. This collaboration embodies the crossing over between art and science. Purcell's photographs are not just illustrations for Gould's essays. But, neither, as Gould writes, are the essays "an explanation or explication of Rosamond Purcell's photographs, but rather a musing (perhaps, on occasion, amusing as well) upon the common theme of a truly joint effort."

The photographs and accompanying essays examine everything from Mardi Gras parades of skeletons to old books found in junkyards, weathered by time and turned into nests by opportunistic wildlife. Purcell's juxtapositions are sometimes whimsical, and her whimsicality often calls forth new insights about the things themselves. Gould contributes his vast knowledge of life, literature, history, and science, enhanced by his capacity for making surprising connections. —Lulu Winslow

"The trade secret of the literary essayist fits the photographs of this book particularly well: Love, treasure, and exemplify the little details in all their intricate fascination, but not for themselves alone (or you will be buried by the two adjectival curses of academic failure and narrowness: *arcane* and *vacuous*). Instead, use those lovely details to exemplify, in a more explicit mote of concrete that can carry a general message with light and lightness, the great issues of matter and meaning that only a pompous fool would attack head on. (No one should ever write a tendentious and general essay about the meaning of human distinctiveness, but a picture of Fred Astaire next to an ape [right] in similar pose conveys both the challenge and the reality with accessible definition, and maybe even with requisite modesty.)



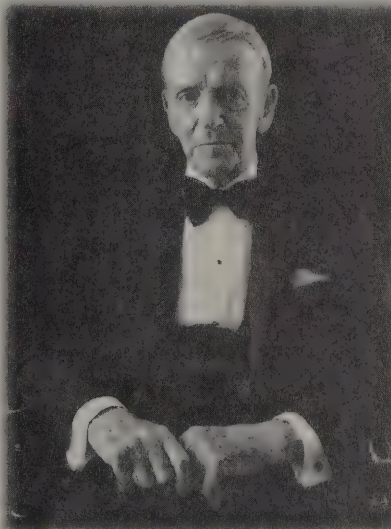
A mangabey monkey, tail bent upward to permit a sitting posture. In its hand Purcell has placed a little book, found on a Dutch beach and given to the Utrecht collection by a man engaged in studying the action of waves and water upon objects.



Crossing Over Where Art and Science Meet

Stephen Jay Gould
and Rosamond Wolff Purcell
2000; 158 pp.
\$27.50
Three Rivers Press

"Intellectual life should not be construed as two cultures of science and humanities at war, or even at variance. Human culture arose from the material substrate of a complex brain; and science and art meld in continuity.



girls to **Grrrlz**

The place for us to be evaluating, discussing, and testing our society is in the funny papers as much as it is in any other public media. For any change to take place, it must first be imagined. The difference is, the funny papers can be more playful, more lyrical, and can perhaps make imagining change easier. And if women act as the cocreators and heroes of these dreams, so much the better. Trina Robbins would like us to revitalize, to celebrate, and enable comics to bring us more well-informed "light" from the print world.

Mainstream comics for girls once sold in the millions, outnumbering any other kind of comics sales anywhere. Girls and women would spend money on comics to read about professional, clever, glamorous, and powerful women in action, or women who dealt with circumstances similar to their own. Publishers occasionally have had a moment of mental clarity on this concept.

The Great Women Cartoonists provides more long-term good news: that women have been working in comics ever since people figured out how to draw. It covers the territory of women who drew everything from Kewpie Dolls to Girl Reporters to Lap Dancing for Mommy to Hothead Paisan to Manga. Rare panes are reproduced clearly enough for even middle-aged eyes to read them without a magnifier. Comics by women who figured out that they needed to self-publish or give it away to stay in print; mainstream work; indy media work; current book-length comics; illustrated grrrl manuals—it's all here.

Eternally Bad isn't about comics, but it draws from the same reservoirs as Robbins's other books. You get the street talk on who was who and who did what to whom during ancient times. Goddess personalities were much like a combination of your wicked Aunt Franny, the righteous brave Mother Jones,



DIANE DIMASSA, HOthead PAISAN. IN FROM GIRLS TO GRRRLZ.

“In 1972 two separate groups of California women cartoonists came up with the same idea independently, each unaware of the other's existence. In Laguna Beach, Joyce Farmer and Lyn Chevely (using the pseudonym “Chin Lyvely”), two single-mother



THE GREAT WOMEN CARTOONISTS

From Girls to Grrrlz is a tour through the life of comics directed specifically at girls and women. It recounts how the girl-comic industry started; how it grew, then floundered, when it was being drawn mostly by clueless middle-aged men; how it struggled to resurrect itself by alternative media and self-publishing, to the peculiar state it is in now. Less than one percent of the population now reads comics; at one time it was 90 percent. The good news is that over 52 percent of those readers are still grrrlz.

and the very feminine Coco Chanel, all rolled into one, with superhuman powers added. These stories are not all silver scepters and shimmering goddess wisdom, and perhaps not for everyone and their saintly grandmothers. Irreverence toward ancient religious figures is not your cup of tea? Give this book to your favorite teenager and keep it away from grandma. But if you admire goddess culture and can still laugh at the slumber-party tone of these stories, grab a copy of Eternally Bad and learn something new about Amaterasu or Saint Lucy or Shiva or even the mighty Diana. “You never know,” as Aunt Franny used to say, “you might learn something.” —Lulu Winslow

artists, reacted against the sexist treatment of women in underground comix by deciding to produce a comic that would deal with real female sexuality. They formed their own publishing company, Nanny Goat Productions, and came up with the outrageous title *Tits and Clits*, featuring the adventures of those “perfectly permeable Peters sisters: Glinda, Wanda, and Fonda,” and Mary Multipary, who became in later issues, Mary Nullipary.

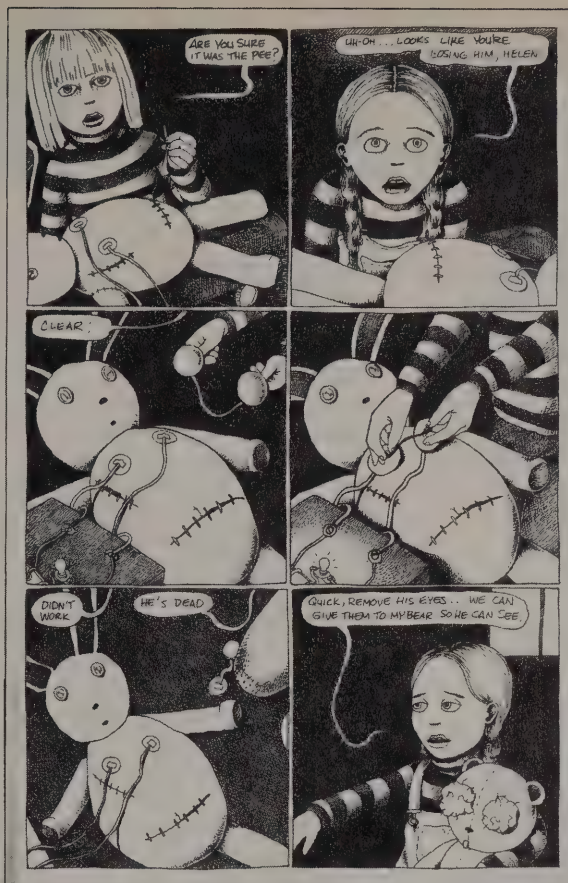
—FROM GIRLS TO GRRRLZ

“Only rarely, it seems, does a woman cartoonist produce genuine, nightmare-producing horror. One of those rare ones is Renée French. Her comics resemble children’s nightmares, and feature little girls, scary grown men, and slightly repulsive, sad-eyed animals that usually die.

—THE GREAT WOMEN CARTOONISTS

“Ballbusters

Artemis wasn’t the only goddess who was hard on men. The Turkish goddess Cybele was even worse. Although most goddesses of the ancient world enjoyed sex with men—in fact in the case of Ishtar/Inanna, sex was a temple sacrament—Cybele’s unfortunate male worshippers worked themselves up into a frenzy and castrated themselves, throwing their severed members at the feet of their goddess. After this, they were allowed to dress up in women’s clothing, paint their faces, and serve the goddess in her temple—an ancient and imperfect version of today’s sex change operations. —ETERNALLY BAD



RENÉE FRENCH, *THE NINTH GLAND*. IN *THE GREAT WOMEN CARTOONISTS*.

Action Girl



THE GREAT WOMEN CARTOONISTS

From Girls to Grrrlz A History of ♀ Comics from Teens to Zines

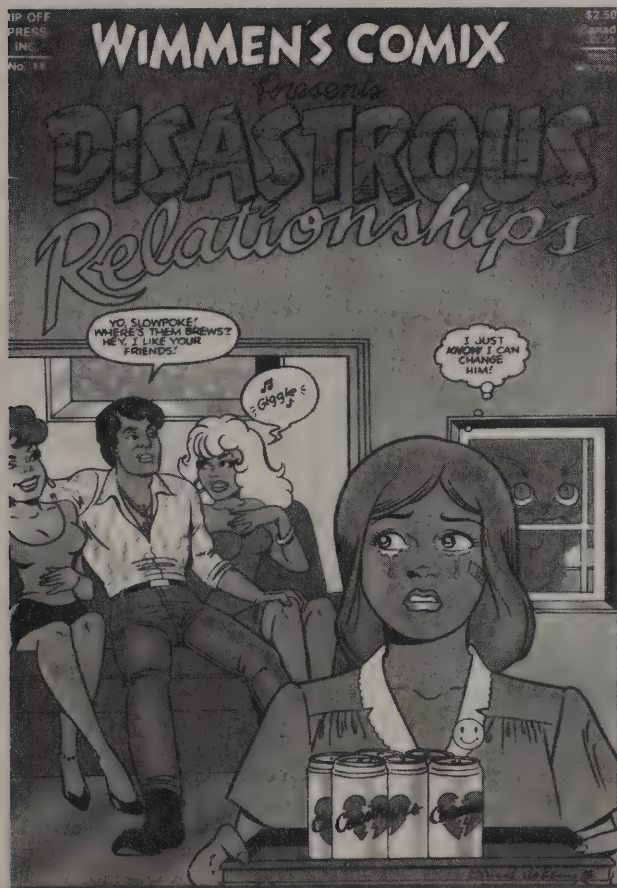
Trina Robbins
1999; 142 pp.
\$17.95
Chronicle Books

The Great Women Cartoonists

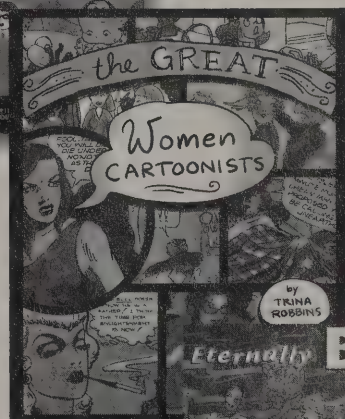
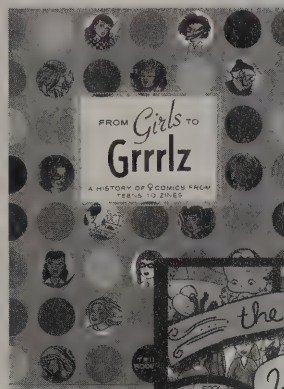
Trina Robbins
2001; 150 pp.
\$24.95
Watson-Guptill Publications

Eternally Bad, Goddesses with Attitude

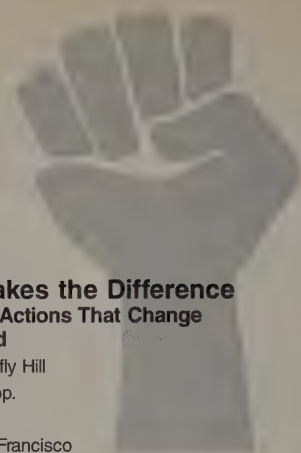
Trina Robbins
2001; 203 pp.
\$15.95
Conari Press



FROM GIRLS TO GRRRLZ



Activism 101



A few months ago, an energetic man burst through the *Whole Earth* office door and exclaimed, "Hi there! I'm sixty-five, I'm retired, and I want to save the world! Can you tell me how?!" Luckily Mike came to the rescue and guided him to some organizations. Had I known about these books then, I would have told him to start here. They are the best, most recent books for people looking for an introduction to the activist world, inspiration, and resources for getting started. They're designed largely like scrapbooks, not front-to-back reads. The style may be especially appealing to younger folks. —EP

Take It Personally How to Make Conscious Choices to Change the World

Anita Roddick
2001; 255 pp.
\$24.95
HarperCollins

My roommate and I picked up this book one night and found it almost impossible to put down. Take It Personally is an excellent compilation of essays, quotes, and photographs by young and old activists and writers from around the globe who are working tirelessly against corporate globalization. You'll find Paul Hawken on the Seattle WTO protests, Vandana Shiva's painful experiences in India during an epidemic of farmer's suicides. Dozens more offer first-hand accounts of efforts on behalf of children's rights and the environment, and protests against the WTO, sweatshops, sexual exploitation, and corporate crimes. Every chapter has stats, facts, quotes, and resources; it's also a great guide for how to use the Web and your money to take action. This is a book to be pored over slowly, shared with your favorite Republicans, talked about often. —Jacob Wenger

"Activism is my rent for living on the planet. —ALICE WALKER

"United Students Against Sweatshops

July 10–12, 1998: Students from twenty campuses across the United States met in New York city and formed United Students Against Sweatshops (USAS). The national coalition of student-based anti-sweatshop groups has energized the social justice movement with their ability to organize, negotiate, and take direct action (such as sit-ins) which have forced schools to adopt codes of conduct requiring full public disclosure. Now USAS is represented at over 100 schools and is crossing borders; in February 1999 a similar organization was formed by students in Canada.

—JOHN ARLIDGE, *THE OBSERVER*, JAN 21, 2001

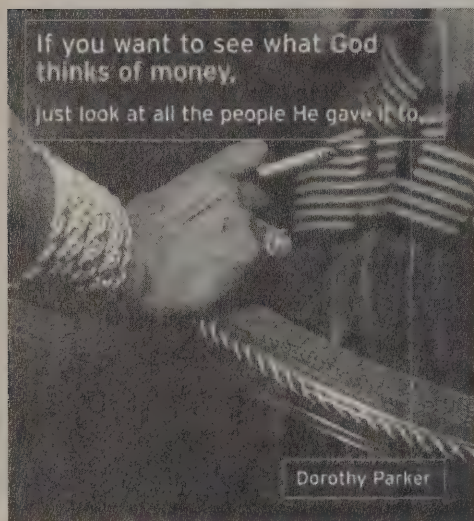
One Makes the Difference Inspiring Actions That Change Our World

Julia Butterfly Hill
2002; 193 pp.
\$14.95
HarperSanFrancisco

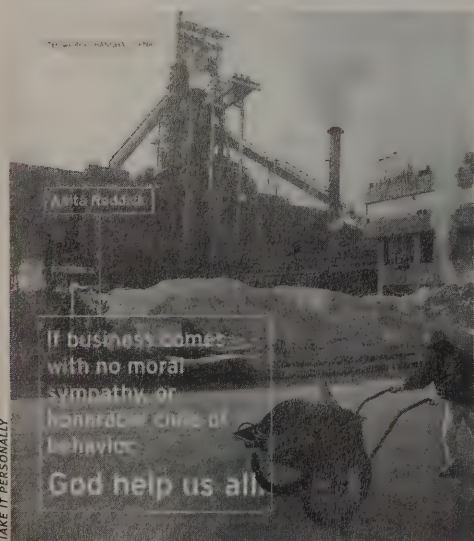
Famed tree-sitter Julia Butterfly Hill is back in print, with a text that fans have been requesting since she touched the Earth after her two-year stint in Luna's branches, protesting Pacific Lumber's destruction of redwood forests. Her new book, which lets her admirers know you don't have to spend 738 days in a tree to make a difference, answers, "What can I do?" and "Why should I do it?"

Using interesting facts, inspiring anecdotes, and practical tips, Julia answers how she makes a difference and reminds readers that they have the power to do it too. It's simple and informative. (Did you know that Americans throw away enough office paper each year to create a wall twelve feet high from Los Angeles to New York City? Or that recycling one aluminum can can save as much energy as it takes to power a TV for three hours?) The book is ideal for a younger audience interested in learning how they can contribute to the wellness of our planet. —Cherine Badawi

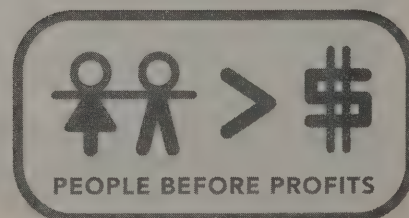
"...there are only two places to start: in your head and in your heart. When you choose to become educated on environmental problems and solutions, you are starting with your head. And, once ignited, the spark of knowledge can fan into the flame of passion. So, in essence, by simply picking up this book, you have already taken your first step. The more you learn about the issues, the more you'll find that knowledge can be a surprising impetus to taking action. Read, investigate, ask questions, and pay attention to ways in which your spirit opens up.

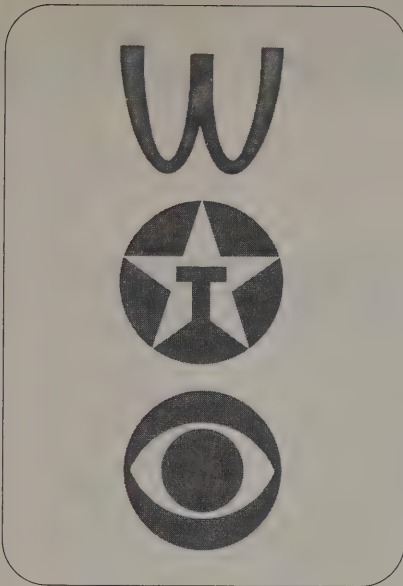


TAKE IT PERSONALLY



TAKE IT PERSONALLY





**Global Uprising
Confronting the Tyrannies of the 21st
Century: Stories from a New Generation
of Activists**

Neva Welton and Linda Wolf
2001; 273 pp.
\$19.95
New Society Publishers

From the first story, I was hooked. On the pages of Global Uprising, I met Dr. Owens Wiwa, a Nigerian fighting to end Shell's destruction of his community. After his brother was executed and he was driven into hiding and then exile, Owens devoted his life to informing people about the impact of corporations on indigenous communities. I met Neta Golan, an Israeli woman who uses herself as a human shield to protect her Palestinian friends' olive trees from being destroyed by the Israeli Army.

Global Uprising informed me about so many things worth fighting for. In addition to hosting personal testimonies from young activists around the world, the book offers perspectives from veterans and "mentors" like Noam Chomsky, Starhawk, and Amy Goodman. It also provides links, organizations, and resources that will encourage and inspire the feeblest of inquirers to take action. —CB

"Having lost a leg from a landmine, I am committed to stopping any further use of landmines. I want every child to be able to wear two shoes. In my country I asked a shoemaker to just make me one shoe. He said, "No! To make one shoe brings bad luck." I ask all the countries of the world to give the children of the future good luck—by banning landmines. —SONG KOSAL, "BAN LANDMINES: A YOUNG SURVIVOR SPEAKS OUT FOR PEACE"

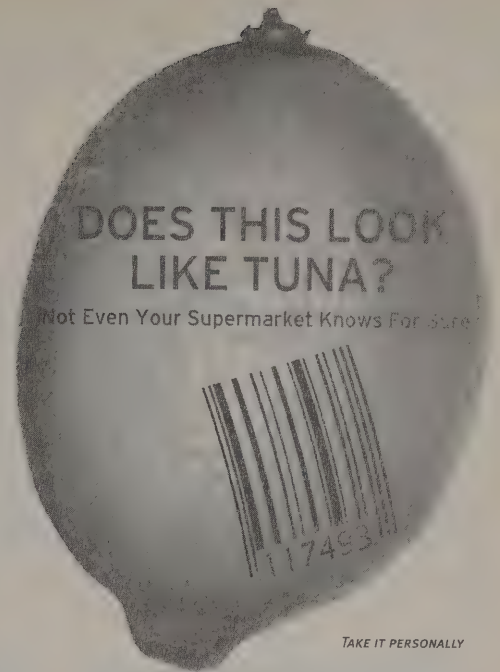
**Education for Action
Undergraduate and Graduate Programs
That Focus on Social Change**

Joan Powell, ed.
2001; 185 pp.
\$12.95
Food First Books

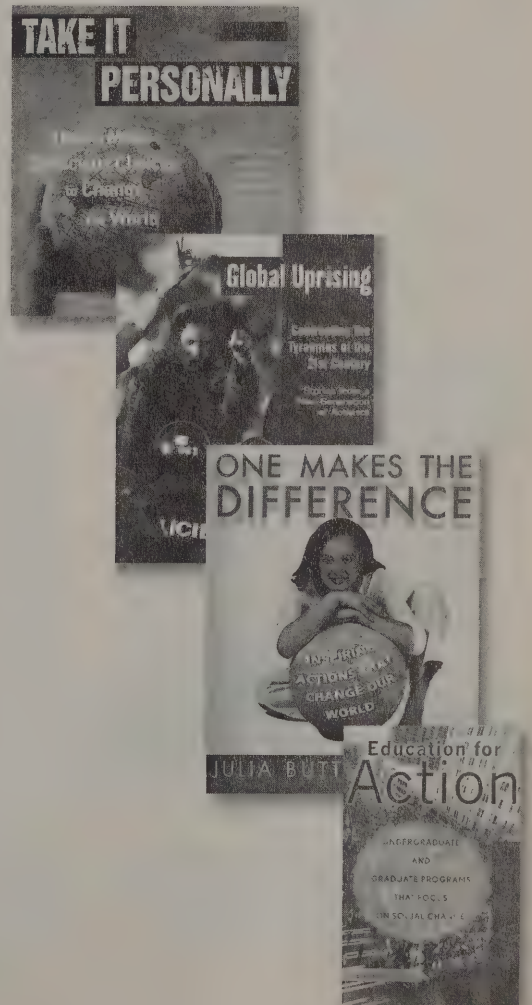
If I didn't love Whole Earth's charming office so much, I would drop my keyboard and run off to Wayne State University in Detroit to pursue Labor Studies. I've never been to Michigan, but such is the driving energy behind this book. Peruse the eighty colleges and their 300-plus courses listed here to find the school that best fits your needs. Choices range across Black Press and US History (University North Carolina, Chapel Hill), Battered Women and the Law (Northeastern University School of Law), Island Economics (University of Massachusetts, Lowell), Plant Pathology (University of Maine). With contact information readily available and a well-organized index, Education for Action gives a good starting point for determining where to spend time, energy, and tuition. College is tough, baby. You might as well go for a good reason. —Devon King

"Earlham College's Peace and Global Studies (PAGS) program has gained a national and international reputation in its twenty years of existence. This recognition emerges from Earlham's solid commitment to peace education as it derives from the Quaker identity of the institution, from the presence of a number of faculty with national recognition in the field of peace research, and from the unusual mixture of opportunities provided at the undergraduate and graduate levels through religious studies at the Earlham School of Religion.

"The University of Arizona's Graduate Interdisciplinary Program in American Indian Studies (AISP) seeks to develop, through research and scholarship, a wider scope of understanding of the indigenous peoples of the Americas—their languages, culture, traditions, and sovereignty. The program fosters interaction and supports productive scholarly activities with American Indian communities throughout the country. The master's program offers opportunities for advanced study in the concentrations of American Indian law and policy, American Indian societies and cultures, American Indian languages and literatures, and American Indian education.



TAKE IT PERSONALLY



HOLT UNCENSORED

Alternative Sources for News
by Pat Holt

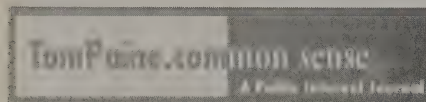
In her online column, Holt Uncensored, Pat Holt wrote, two days after September 11: "Watching news coverage of the attacks and aftermath since Tuesday, I keep wondering, what's holding the press back? Why *don't* these editors and producers bring in people who question, criticize, argue, contradict, or damn the approved point of view?" She devoted parts of several columns to reviewing the sources where she had found the most useful news and commentary. We thank her for sharing the list with us. It's highly personal, with attention (given the context) to the Middle East and Afghanistan, and no pretense of rounding up sources from every political persuasion. We invite readers to tell us where *you* go for news you can trust, from whatever perspective—left, right, Middle America, or Middle Earth. —MKS

To read or subscribe (free) to Holt Uncensored, go to www.holtuncensored.com.

AlterNet.org

ALTERNET
www.alternet.org

Rapidly becoming the granddaddy of alternate news sites, this all-in-one service gathers provocative and original articles like a house afire from such sites as Tom Paine, Working for Change, The Guardian, Pacific News Service and many others. Its free email version offers an at-a-glance summary of most timely articles from the alternative press, with links to the full texts.



TOMPAINE.COM
www.tompaine.com

Great critical writing abounds and the essays often power through bureaucratic thinking without apology. For example, perhaps the worst indictment of the formulaic thinking of the traditional press was leveled at one of the nation's newspapers of record by Nina Burleigh on TomPaine.com: "The morning after the worst terrorist attack in history, the nation's great editorial page editors have offered up the wisdom of a group of middle-aged white men whose claim to fame is that they lost the Vietnam war."



STRATFOR
www.stratfor.com

A think tank founded in 1995 by professors from Stanford University and Dickinson College, this Austin, Texas-based group of forty calls itself "a provider of intelligence" to corporations, governments, and media.

Common Dreams NEWS CENTER

Breaking News & Views for the Progressive Community
COMMON DREAMS NEWS CENTER
www.commondreams.org

Like AlterNet, this service gathers news stories for progressive readers, but since it was founded by Craig Brown, once chief of staff to a member of Congress, it draws from a number of think tanks, public service agencies, and academic institutes as well as media. A recent day's sources, for example, included the Center for Constitutional Rights, East Timor Action Network, Green Party of the United States, Council on American-Islamic Relations, Amnesty International, and many others.

GLOBAL EXCHANGE

GLOBAL EXCHANGE
www.globalexchange.org/update

This human rights organization provides exchange programs to and from Cuba, Brazil, Mexico, Palestine, and Colombia, and ain't happy with the Bush administration's policies in most of them. Its "Recent News Updates" page offers a calendar of news stories that can be quite an eye-opener if you missed the *Fresno Alliance's* story on activists protesting Gap sweatshops or the *New York Times* article about a United Steelworkers lawsuit accusing Coca-Cola of hiring thugs in Colombia to intimidate and kill labor organizers.

International Action Center

INTERNATIONAL ACTION CENTER
www.iacenter.org

Founded by Ramsay Clark, former US Attorney General, this site offers "information, activism, and resistance to US militarism, war, and corporate greed." I read it for updated information on protests and other activist doings.

THE ELECTRONIC INTIFADA

A RESOURCE FOR COUNTERING MYTH, DISTORTION AND SPIN FROM THE ISRAELI MEDIA WAR MACHINE

THE ELECTRONIC INTIFADA
www.electronicintifada.com

Of course this "resource for countering myth, distortion and spin from the Israeli media war machine" is going to have a pro-Palestinian spin, but because of that, it was a site to check on Arab-American reactions to the 9/11 attacks, violence against Arab Americans and Arab- and Muslim-owned buildings, and answers to such rumors as those alleging that the Reuters footage of celebrating Palestinians after the 9/11 attacks was old film from a different event. (It wasn't, say the editors, but why didn't American media also show the one million Palestinian school children who observed a minute of silence in support and sympathy for American victims?)



UNITED NATIONS REFUGEE AGENCY
www.unhcr.ch

Up-to-the-minute news about the fate of the refugees created by the events in the daily news—and often forgotten when the world's attention turns to newer stories.



Z MAGAZINE
www.zmag.org/ZNET.htm

Features often-neglected critical commentary (Chomsky, Ehrenreich, Fisk, Shalom, Albert) as well as educational articles. It's a very accessible website with great links to sites like Move On, US Protests (current and coming), the Arab American Anti-Discrimination Committee and many others.

Nygaard Notes

Independent Weekly News and Analysis

NYGAARD NEWS
www.tc.umn.edu/~jwalker2/nygaard_notes/

Offers both an independent email column and webpage launched from the University of Minnesota with many links to unknown sites (such as Wesleyan students' site for peace).

American Civil Liberties Union

FREEDOM NETWORK

AMERICAN CIVIL LIBERTIES UNION

www.aclu.com

Provides excellent coverage of what's at stake whenever civil liberties are given up for the sake of national security. ACLU is well known for its positions regarding free speech and free press, but the value of its thorough analysis of events affecting Constitutional protections (such as the "PATRIOT" bill's passing by Congress) can't be overstated.

PROJECT CENSORED.ORG

PROJECT CENSORED

www.projectcensored.org

Ironically, one of the censored stories of 1983 reported how the Pentagon wanted to establish special "state defense forces" to prevent or suppress terrorism. The proposal failed. Project Censored, which has been publishing books about the "top censored stories" every year for over a decade, has the goods.

imc

INDEPENDENT MEDIA CENTER

www.indymedia.org

I watched this collective of journalists and "independent media organizations" to see how fast anti-war activism spread at the grass-roots level.



MEDIA MONITORS NETWORK

www.mediamonitors.net

This attempt to build a "nonprofit, nonbiased and nonpolitical platform" of contributed articles getting at "the whole truth" sometimes sounds like a glorified chat room, but it's worth plowing through raw opinion for insightful commentary. Mohamed Khodr, an American Muslim physician, questions what would have happened if Timothy McVeigh had been Muslim (would "60 Minutes" have been so polite?), Palestinian Edna Yaghi writes a furious essay on reckless soldiers (many of them American) killing children in Palestine in "You Have Made Me Your Human Bomb," twice as chilling for its publication (8/27) before the attacks of 9/11.

PEACE.PROTEST.NET

PEACE.PROTEST.NET

<http://pax.protest.net>

Lists news sites, coalitions, petitions, posters and well over 100 cities around the world, where antiwar and antiracism marches and other events are soon to occur.



workingforchange

WORKING FOR CHANGE

www.workingforchange.com

This Working Assets site seems to be everywhere at once—it runs the best liberal columnists (Molly Ivins, Jonathan Schell, Robert Scheer), was among the first to disclose the Jerry Falwell-Pat Robertson gaffe about blaming gays and "abortionists" for September 11, offers many of the best-researched essays on the Web and even has columnists like Laura Flanders in the trenches (her dispatches from lower Manhattan brought an immediacy to the aftermath of the WTC attacks that even TV cameras could not capture).

GuardianUnlimited

THE GUARDIAN

www.guardian.co.uk

This British site offered an exhaustive but accessible Special Report on "Terrorism in the United States" (www.guardian.co.uk/wtccrash/0,1300,550197,00.html) including topics ranging from "airlines in crisis" to the economic impact of the 9/11 attack, the ongoing US investigation, points of view from foreign countries (Pakistan, Afghanistan, Israel), reports by foreign correspondents from Italy, France, Canada, Japan, and East Asia, and a few surprises at the WTC site in New York: "Even the Mafia has joined the rescue effort...According to the *Daily News*, Carmine Agnello, jailed son-in-law of Mafia chief John Gotti, has offered his \$6m shredding machine, which can chew up steel beams." Attaboy, son!



The Herald

THE HERALD

www.theherald.co.uk

Always inquisitive and feisty (one of the first newspapers to report on plans by Borders Books & Music to use surveillance cameras for checking customers' faces against police data), this Glasgow-based site ran articles soon after the 9/11 attack about British and American operations in the Mideast "that never touched public consciousness in the west."

BBC

BBC

www.bbc.co.uk

The British Broadcasting Company's website settles a bit too comfortably into mainstream passivity, but with its across-the-Atlantic focus and international outlook, the BBC often provides international news faster than many media sites in the United States. Its very British headlines (on the effect of the 9/11 attacks: "Tourism Shocked to the Core") proves the old *New Yorker* adage that "there will always be an England."



FAIR

www.fair.org

Now a famous media watchdog, FAIR (Fairness & Accuracy In Reporting) was one of the first sites to comment on "how little mainstream media have discussed relying on the rule of law—international law—to pursue the foreign terrorists." FAIR can sometimes swagger around in its name-calling role, but when it comes to documenting accusations, few are as disciplined or thorough.

Afghan Daily

AFGHAN DAILY

www.afghandaily.com

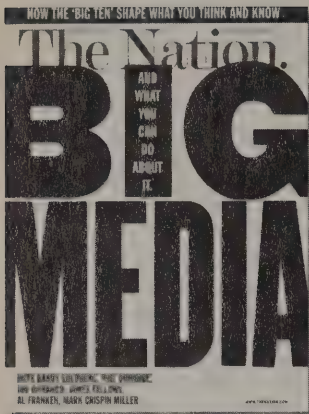
Offers an English-language summary that seems to view news and events through a larger Middle Eastern viewpoint with an eye toward the most current news.



SAHAFI ONLINE

www.sahafa.com

Sahafa is a great resource, with news articles written in English from a Middle Eastern point of view and about as current as is possible even from this side of the planet.



The Nation on Big Media

Back issues \$4 each; 800/333-8536

Want to know why mainstream news and entertainment feel so homogenized? Turn to the center of the January 7/14, 2002 issue of The Nation for a double gatefold chart detailing the tentacles of the "Big Ten" companies that increasingly dominate US media, music, publishing, sports, and entertainment, not to mention theme parks and live venues. A dozen and a half commentators (Ani DiFranco, Danny Schechter, Nicholas Johnson, Mark Dowie) weigh in with recommendations.

The Nation also invited readers to nominate favorite alternative media outlets, and printed about fifty of their responses. Most, though not all, swing from the left side of the plate; nominees range from the BBC and The Guardian (UK), to Designer/Builder, Free Radio Santa Cruz, TheSpleen.com, and The Other Side, a prochoice, progay, proconsumer evangelical Christian magazine from Philadelphia. —MKS

PR WATCH

PR Watch

www.prwatch.org

The Weekly Spin

To subscribe, send email to weekly_spin-subscribe@yahoo.com

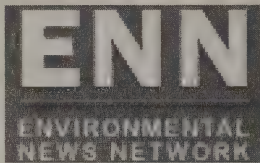
This project of the Center for Media and Democracy bird-dogs the government and corporate propaganda and public relations industries, reporting on the most egregious efforts at bluwashing, greenwashing, and otherwise distorting the motives and actions of their client

companies and governments. Their "Spin of the Day" at www.prwatch.org/cgi/spin.cgi serves up a daily fragrant example (summarized in The Weekly Spin, their free email newsletter).

—MKS

"The 2002 Johannesburg Summit on Sustainable Development is...a chance to strengthen the UN as an institution that can monitor global corporations and hold them accountable. But the Johannesburg meeting takes place as the UN is increasing its commitment to corporate partnerships, a situation that threatens the success of the Summit."

—SPIN OF THE DAY, JANUARY 24, 2002



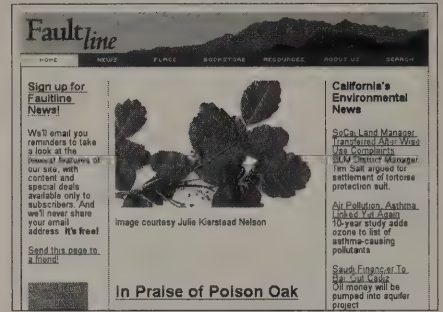
Environmental News Network

enn.com

Every morning by about 9:00 I get an email containing eight or ten news stories on a wide range of environmental issues, most of which tell me things I didn't previously know. Also included are about a dozen press releases from nonprofit groups offering fresh insights on subjects not covered in the mainstream press.

This free email comes from the Environmental News Network, a Berkeley-based website that offers the most comprehensive package of ecological information I've found on the Internet. The website itself displays a lavish menu of feature articles, press releases and in-depth reports on everything from global warming to shark protection. It also contains audio reports from its own broadcast department, Earth News Radio, along with chat rooms, debate forums, and interactive quizzes. There's also the requisite "environmental marketplace" where green businesses sell the usual array of ecotourism services, natural health products, and alternative lifestyle stuff.

The volume and variety of ENN's information is impressive, and a lot of the content simply isn't available elsewhere without lengthy online research. Jerry Kay is ENN's editor-in-chief, as well as the voice of Earth News Radio. Part of his strategy is to grow an information network that includes affiliate partnerships with environmental organizations around the world. That's one reason the site contains such a myriad of content sources. —DB



Faultline

www.faultline.org

Verde Media, the all-green website where Chris Clarke and I were once editors, burned through somewhere between \$8 and \$23 million dollars in about a year, before vanishing into Chapter 11.

An environmental website had been one of Chris's dreams long before post-Verde unemployment gave him the time, if not the money, to make it happen. Verde spent some \$7 million on its content management system; Chris spent \$1,400 (about," he says, "what most 14-year-olds have in their bedrooms"). With that, and a \$25-a-month email account, Chris created Faultline, a website and future magazine about the environment of California.

Faultline is clean, clear, well illustrated, easy to navigate and, most important, full of excellent, highly readable content. Some of the writing may be a little polemical, but it covers a lot of ground with solid information. There are articles on the extirpated grizzly bear, banana slugs, kit foxes and the Truckee River, along with a number of outstanding book reviews, Web links, resource guides and a little whimsy.

Faultline demonstrates the democratizing power of the Internet at its best, and suggests that unlimited venture capital can sometimes be a curse. A website like this would be smothered by \$23 million, or even \$10 million. —DB

"This is a pilgrimage of sorts. I like to think of myself as a rationalist, well inoculated against conspiracy theories and paranormal claims: alien pyramid-builders, black helicopters, whatever. The messy complexity of the real world interests me more than the neat constructs of fantasy. But we all have our weaknesses, and mine seems to be cryptozoology. I can do without the gods, but I need the monsters." —JOE EATON, ON THE BIGFOOT MUSEUM

A Real Feast of Intelligent Heresy

Paradise for the Bobo, or "bourgeois bohemian," doesn't look quite so idyllic as it did when this book first appeared in 2000. Bobos in Paradise is an artifact of haute dot-communism, an era when sheer symbolic analysis seemed sure to carry the day across the board.

The author, Wall Street Journal veteran David Brooks, clearly had a very good time as he wrote this. Being a conservative political commentator in the twilight of Clintonism must have been a breeze; every day a real carnival! Nowadays, guys of Brooks's ideological ilk are reduced to lame apologetics for lost Senate majorities and rising fuel prices. It's the difference between aloof critique and grim responsibility, and boy, that's got to sting.

Still, Bobos in Paradise is the best and most meticulous portrait ever written about the kind of people who hang out with the Global Business Network.

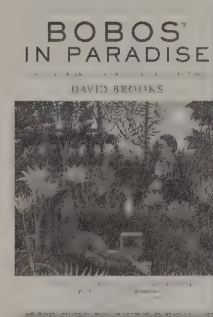
This book explained to me, for the first time ever, why business people only like to talk about their holidays, while intellectuals can't talk about anything but their work. Chapter Five, "Pleasure," on the stifling Bobo ideal of a good time, is side-splitting. This is the funniest and most insightful book I've ever read by a guy whose politics I can't stand. A real feast of intelligent heresy.

—Bruce Sterling [courtesy GBN]

“The central disagreement today is not the sixties versus the eighties. It is between those who have fused the sixties and the eighties on one side and those who reject the fusion on the other. In the Republican Party, moderates and modern conservatives do battle with the conservatives who want to refight the 1960s. On the Democratic side, the New Democrats do battle with those who have not come to terms with the Thatcher-Reagan reforms of the 1980s.

“We Bobos have taken the bourgeois imperative to strive and succeed, and we have married it to the bohemian impulse to experience new sensations. The result is a set of social regulations constructed to encourage pleasures that

are physically, spiritually, and intellectually useful while stigmatizing ones that are useless or harmful. In this way the Protestant Work Ethic has been replaced by the Bobo Play Ethic, which is equally demanding. Everything we do must serve the Life Mission, which is cultivation, progress, and self-improvement.



Bobos in Paradise The New Upper Class and How They Got There

David Brooks
2000; 284 pp.

\$14

Simon and Schuster



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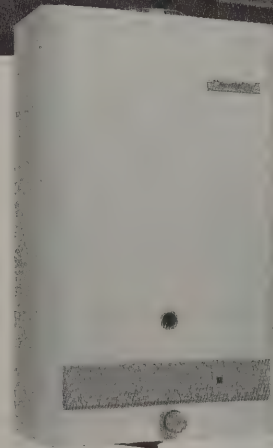
*"I went to the woods
because I wished to
live deliberately,
to front only the
essential facts of life,
and see if I could not
learn what it had to
teach."*

—Henry David Thoreau

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Revival of the How-to Bible

The Lyons Press has put out an extensive series of reprints of practical books in the spirit of the Foxfire books. Like them, this series of classics comes from the source of old-timey know-how. The books present immense detail and practical and complete references, particularly since most in the series (which includes fourteen titles) were intended as textbooks. The original texts were first published between 1880 and 1937, but the bulk of the information is as applicable today as it was a hundred years ago.

I first learned to drive and work with a farm tractor when I was a teenager, and no guide-books were anywhere to be found. What it would have meant to me to have the words of John Deere himself to guide me. Tractors are pretty much the same today as they were then. The same basic components are at work; tractor logic is the same; the same principles apply to working the soil. In reading *The Operation, Care, and Repair of Farm Machinery* I felt comforted knowing that I was sharing common knowledge with farmers of a century ago.

I am a farmer whose carpentry skills are limited to chicken coops and harvesting sheds. But if I could hold *Barns and Outbuildings* in one hand and a hammer with another, I just might be able to make some progress in that

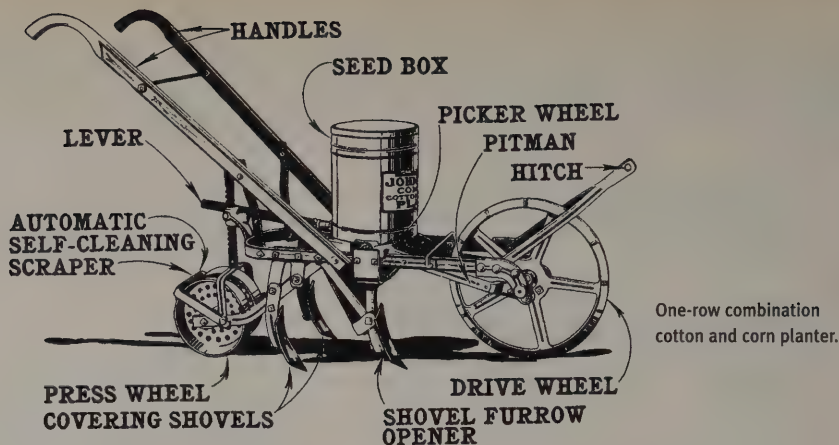
area. *Barns and Outbuildings* covers a broad range of designs, illustrations, floor plans, and building instructions. It is a charming collection of beautiful and practical ideas to answer structural needs that are still necessary: pig-pens, tool houses, as well as a host of barns designed according to the whim of the owner and the lay of the land.

Now that I'm getting comfortable with aspects of farming that I've learned the hard way, I can take on *Horses, Mules, and Ponies*, an arena where I have never ventured. The comprehensive knowledge from pre-Civil War America in regards to horse care is much more practiced and detailed than anything that could be written today. This remains one of the bibles of horse breeding, care, and riding. Particularly interesting to me was "How to Physic a

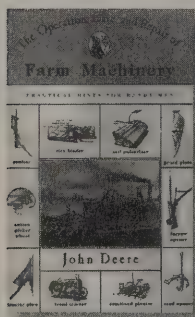
Horse—Simple Remedies for Simple Ailments," which drew heavily on the principles of homeopathy in diagnosis and treatment. —David Guyer-Stevens

"The importance of having the correct amount of suck in the share cannot be emphasized too strongly. Too little underpoint suction will cause the plow to "ride out" of the ground and cut a furrow of uneven depth. Too much will cause "bobbing" and heavy draft. In both cases, the plow is difficult to handle. If the landslide suction is too great, the bottom tends to cut a wider furrow than can be handled properly, and the reverse is true when the landslide suction is not sufficient. —*THE OPERATION, CARE, AND REPAIR OF FARM MACHINERY*

"A warm dry pen is necessary for the health and comfort of the pig. Cold and damp induce more diseases than are charged to these causes....But the difficulty is to have a door that will shut of itself and can be opened by the animals whenever they desire. The engraving [below] shows a door of this kind that can be applied to any pen, at least to any to which a door can be affixed at all. It is hung on hooks and staples to the lintel of the doorway, and swinging either way allows the inmates of the pen to go out or in, as they please. —*BARNS AND OUTBUILDINGS AND HOW TO BUILD THEM*

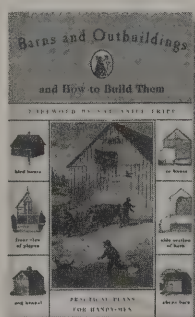


THE OPERATION, CARE, AND REPAIR OF FARM MACHINERY



The Operation, Care and Repair of Farm Machinery

John Deere
2000; 239 pp.
\$12.95
Lyons Press; Originally published by John Deere Company, 1937



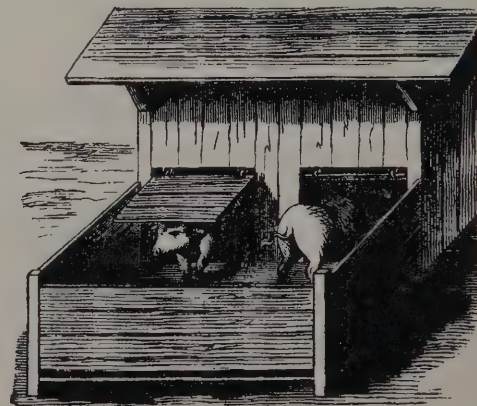
Barns and Outbuildings and How To Build Them

Byron David Halsted
2000; 235 pp.
\$12.95
Lyons Press; Originally published by Orange Judd Company, 1881

Horses, Mules and Ponies and How To Keep Them

Henry William Herbert
2000; 425 pp.
\$12.95
Lyons Press; Originally published by Orange Judd Company, 1859

Other books in the series: Farm Appliances • Farm Blacksmithing • Farm Conveniences • Farm Machinery • Farm Motors • Fences, Gates and Bridges • Handy Farm Devices • Harris on the Pig • The Homestead Builder • Shelters, Shacks, and Shanties • Village and Country Residences



BARNS AND OUTBUILDINGS AND HOW TO BUILD THEM

Rescuing What's Wild



Siberian crane (*Grus leucogeranus*)

The Birds of Heaven Travels with Cranes

Peter Matthiessen
2001; 350 pp.
\$27.50
North Point Press

Last November a pair of Siberian cranes touched down in an Indian marsh after a 2,400-mile flight over deserts and mountains from arctic Russia. It had been a riskier journey than usual: part of their migration route, the Kabul Valley of Afghanistan, was now a war zone. They are the last of their species' central Asian population; when they're gone, a legacy of 15 million years ends.

I can't think of a better choice than novelist-naturalist Peter Matthiessen to celebrate—and mourn—these magnificent creatures and the fourteen other cranes.

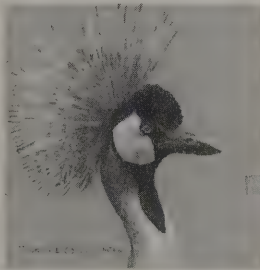
The sonorous calls and stately dances of cranes, their epic travels and lifelong pair bonds, resonate with the human imagination. Tibetan Buddhists and Pueblo Indians, Ainu and Australian Aborigines have revered them. But we've made the planet a less hospitable place, destroying the wetlands where they nest and feed. Eleven species, including the Siberian and North America's whooping crane, are now endangered.

This isn't just a litany of losses. Matthiessen celebrates scientists and conservationists struggling to save the cranes: George Archibald, the self-styled "Craniac" whose International Crane Foundation pioneered captive breeding of rare cranes, and his allies on five continents. He chronicles the heart-breakingly slow attempt to establish whoop-

ers in not-yet-Disneyfied Florida wilderness. He makes clear our loss if what Aldo Leopold called "the trumpet in the orchestra of evolution" is silenced. —Joe Eaton

“In Wyoming and Colorado as well as Nebraska, the Platte is bound tight by more than forty dams, with forty more still pending; if these are constructed, more than 80 percent of this already diminished river will be lost, and with it, the most critical crane migration sanctuary in North America. Indeed, sandhill legions on this river, dancing and bugling in spring and fall, are by far the greatest crane assemblies on earth.

“Perhaps a half hour after midday, the white cranes turn toward us. In three long strides they step into the clear on the green carpet of maiden cane around the pool edge. A moment later I am staring at the chick—the first wild whooping crane born in the United States in sixty years, the first born east of the Mississippi in well over a century, and so far as is known, the first of its species ever born on the Florida peninsula. When it stretches its neck and peers around in imitation of the wary adults, it is tall enough to reach the belly of its parent, which stands as tall as a small human being. This historic chick, warm golden brown, with a short bill not yet black but pinkish orange, resembles a large downy pullet with no tail.



Gray crowned crane (*Balearica regulorum*)

The World and the Wild Expanding Conservation Beyond Its American Roots

David Rothenberg and Marta Ulvaeus, eds.
2001; 250 pp.
\$19.95
University of Arizona Press

Wilderness has been both praised and panned as a uniquely American concept. Maybe that's because white Europeans, ignoring the presence of a few million indigenous people, alternately feared and romanticized the American wilderness as a place of deep, dark forests and vast empty spaces. Wilderness as official US policy only came after the destruction of indigenous culture made it possible to promote the fantasy of wild places where no humans had ever lived.

Today, the preservation of wilderness has become politicized by the argument that wealthy, developed nations, most of which have destroyed their own wilderness, have no business telling developing nations how to preserve theirs. And yet as species extinction becomes pandemic, much of it driven by the commerce of globalization, the pressure to protect wilderness mounts.

The World and the Wild thoughtfully examines the politics and practice of wilderness protection around the globe. While some people will argue that the presence of six billion people makes the preservation of wilderness moot, these essays provide evidence that the effort is worth pursuing, if not always according to the Western model.

*In the end, wilderness preservation becomes a question of relationship—how diverse cultures choose to (and are allowed to) express their relationship with the natural world. There are no easy answers to that question but *The World and the Wild* helps us better understand its contours. —DB*

“Instead of perpetuating tiresome arguments about what a wilderness really is, perhaps the best way to respond is to simply bring the discussion back to earth by comparing how the preservation of areas with...previous human alterations would compare with the likely alternatives today, including such things as highway construction, conversion of forests to cattle pastures and soy plantations, open-pit mining operations, and the drowning of forests and poisoning of rivers by giant hydroelectric reservoirs.

—EDWARD A. WHITESSELL, "MAPPING THE WILD"



PETER MATTHIESSEN



Whole Earth is a conversation. Compliments, cavils, and corrections are welcome. Letters and email may be (reluctantly) edited for space or clarity.

Communes Live

Hello,

Bob Pulley's letter in the Summer 2001 issue ["Whippersnappers, Meet the Old Farts"] asks "What is happening with the old communes? Are [Twin Oaks and East Wind] flophouses for shiftless young people? Has their vision shifted?"

I'm happy to report that both Twin Oaks and East Wind are thriving, as are other members of the Federation of Egalitarian Communities (www.thefec.org). Some Twin Oakers are indeed growing old here, but this trend has been counterbalanced by an large influx of young people in the last two years, and our average age remains just over forty years.

Most of us at Twin Oaks—both old and new members—remain motivated by the same values which have inspired the community for years: meaningful and chosen work, cooperation, sustainability, egalitarianism, and economic democracy.

We are currently accepting new members. A description of our three-week visitor program (along with a lot more about us) is available online at www.twinoaks.org.

In community,
Raj Ghoshal
By email

A Pole by Any Other Name

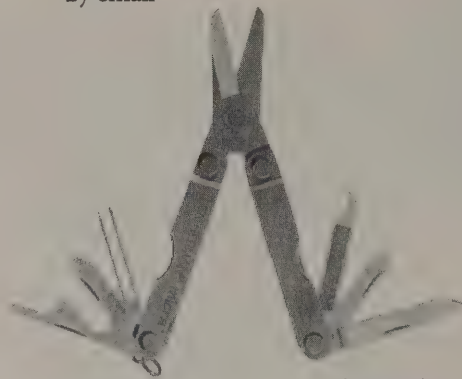
Dear *Whole Earth*,

Trekking poles (Winter 2001) are another example of the marketing ploy of altering a few features and the name of a product common in one market and selling it at a higher price in another market. Trekking poles differ little from ordinary cross-country ski poles, which have long been used in glacier trekking and in mountaineering in Norway.

Such use remains prevalent, as hikers in tough terrain as well as the elder-

ly walking iced city sidewalks will carry and use one or two ski poles. Roller skiing poles, with carbide tips that bite into asphalt, are favored for the purpose. Might readers be advised to check prices at the local XC ski shop before forking out three to five times as much for XC poles under another name?

Michael Brady
Oslo, Norway
By email



Leatherman Micra

Knife Fight

J. Baldwin!

I was surprised to see you reviewing the tired old Swiss Army Knife! (Winter, 2001.) Here's an alternative review.

My Leatherman Micra (www.leatherman.com) is a micro-multitool, in my opinion superior to the Swiss Army fatso. I am comfortable with this tiny tool in my dress suit pocket, and yet the Micra really works hard. Micra folds smaller than a penknife, but includes scissors, tweezers, ruler, bottle-cap opener, knife, screwdrivers, file, and cuticle/nail cleaner. It weighs 50 grams. Optimum hardened stainless steel. Lanyard attachment. I love mine! I lose them but have never broken one.

George von Hilsheimer
Maitland, FL
By email

JB responds: That's cool, sir, but I regularly use a lot of things on my Swiss Army Knife that are not on lesser models, e.g., the magnifier. The tiny screwdriver in the midst of the corkscrew is uncommonly adept at untangling jammed small knots. The approximately 32,000 duties I've used it

for say it well. I started with smaller ones a long time ago. My Leatherman standard original model enjoyed much less use and was maddeningly designed to assault hands and fingers. Later models are better. What it comes down to is that the current variety makes a personal match likely. Thanks for writing.

Peter Warshall says: I prefer the Leatherman because of the pliers and better steel. I even like the picnic variety, with a blade for spreads, a decorker, and better scissors than the Swiss Army model.

Cover-up

I take exception to several of the recently published remarks concerning the "unseemly nature" of the "Welcome to the Greenhouse" cover (Summer 2001). It may not be attractive (aside from Ms. Earth), but it does attract attention. What sort of demographic is a man kissing a fish supposed to attract?

I don't know how many new readers pick up the magazine from newsstands, (I had a hell of a time even finding a newsstand that carried it) but I'd bet that the names Gibson, Stephenson and Sterling attracted a readership from college newsstands that had never touched *Whole Earth* before. Who knows; maybe they'll come back!

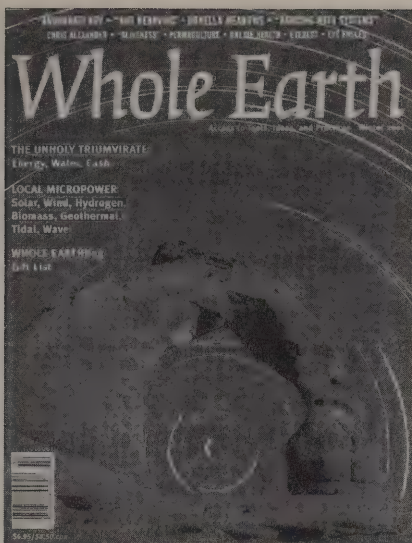
I hadn't realized there was a magazine. I remember the *Catalog* from my youth, but I wasn't a subscriber. I am now!

Duncan Stewart
By email

P.S. The photo of "Delicate Arch" on the Winter 2001 issue should mollify the skeptics, I should think. Beautiful!

I am a long-time *Whole Earth* subscriber. I must express my disappointment with several items in the Winter 2001 issue.

Whole Earth covers generally relate to a major theme of the issue, but I can't discern the message of the computer-faked eye candy on the Winter 2001 cover. The polar sky would never



Whole Earth Issue 106, Winter 2001.

appear at such a low angle behind the Natural Bridge, whose bright red color might be credible at sunset or sunrise, but not so given the angle of the light shining on it in the cover image.

The diagram “power delivery designs” on page 17 doesn’t make any sense to me as an electrical engineer. The caption is nonsense and self-contradictory “...the electric current dead-ends.” Electrical current cannot “dead-end”; it only flows in a loop. “In loop arrangements, heat is wasted when currents cross each other, but they are also more efficient in distributing current.” Heat is the waste product, not what is wasted. If the grid is more efficient, then less power is wasted, not more.

The article “The Politically Correct Nuke” states: “though the pebbles heat to more than 1,000 °C, the coatings trap the radiation inside.” The coatings might contain radioactive materials, but not radiation. No chain reaction would occur if radiation could not propagate among the pebbles. As with any nuclear reactor, only thick walls of dense materials such as lead or concrete could contain the radiation.

On page 43, the graph that goes with the paragraph “oil price changes” is a confusing scribble. The axes are not labeled, and the explanation is self-contradictory: “the size of the swings

tripled, but changes stayed perfectly random.” A tripling in size is a trend, not a random phenomenon.

Whole Earth has in the past generally based its futurist proposals on scientifically sound evidence, explained them clearly, and maintained a realistic tone. This tradition has suffered considerably with the Winter 2001 issue; I hope that it can be restored.

John S. Allen
By email

Peter Warshall responds: The cover is not computerized, but is actually an all-night photo. You’re right about the color. Because of a printing glitch, it’s much brighter red than the original, and has lost the subtle rock shadows. We apologize. We thought that the cover expressed that some energies, like rotational energy and even starlight, just need to be accepted and are not human-created.

The caption for the power delivery diagram was poorly worded. The point was simply that the “Y” arrangement has more waste product (heat) than do looped patterns. “Dead-end” should have referred to the electric line, not the current.

Re: the pebble-bed article, the radiation does, of course, leave the pebble. It’s the radioactive material that remains inside. The *Popular Science* article we reprinted had it wrong, but we failed to catch it.

Sorry if the “scribble” graph wasn’t clear, but that’s what I wanted to demonstrate—that there is no trend in the direction of oil price changes (they go up and down in a chaotic manner). We wanted to advise readers that a popular indicator of energy trends (as oil becomes scarcer, its price should rise) is no longer reliable, because of new fields, new technologies, new fuels, conservation, and a new global economics.

Thanks for the detailed reading.
Need a job copy-editing captions?

More Energy

You folks have published rules of

thumb in the past, so I thought you might be interested in a calculation I made about how cheap gasoline really is: If I took a reasonably young and athletic person and asked him (or her), for \$5/hour, to generate as much energy on a bicycle generator as is in a gallon of gasoline, how much would that equivalent gallon cost? at least \$500!! (and that’s after discounting for combustion & mechanical efficiency). If you are talking about total chemical potential energy, that’s about three orders of magnitude more than we now pay. So \$500/gallon gasoline is my rule of thumb for a sustainable economy/society.

Muriel Strand
By email

Gone Insane

Editor,

I don’t get it. I’ve been a long-time reader, subscriber. I’ve treasured my *CoEvolution Quarterly* and *Whole Earth Reviews*. Back issues take up several feet of valuable shelf space on my book case. You folks have been like old friends. Now you’re like old friends suddenly gone insane.

There is no such thing as a “politically correct nuke,” as the headline of your article about the pebble bed reactor claims. Embracing the pebble bed is embracing our society’s gluttonous use of energy, leaving the bills to be paid by tens of generations yet unborn who will have the responsibility for safeguarding dangerously radioactive wastes.

Please visit the website of Three Mile Island Alert (tmia.com) or the Nuclear Information Research Service (nirs.org) and get some information on the pebble bed that you wouldn’t get from Professor Kadak.

It is hard to believe that your magazine, which has long espoused simplicity, conservation, and sustainability, would print such a thing.

Those of us who live in the shadow of Three Mile Island, perhaps more than others, are skeptical of claims of safety from the mouths of the nuclear industry. Now, more than twenty years

into the ongoing accident, the threat has not been diminished.

The responsible answer to America's energy woes lies in conservation and the use of renewable and sustainable energy sources, not nuclear power. Your advocacy of adding to the existing mountain of nuclear wastes disgusts me. I just don't get it.

Bill Cologie
Harrisburg, PA
By email

Peter Warshall responds: I hope that no reader assumes that we advocate everything asserted in every article we print. We sometimes present provocative viewpoints contrary to our own. Sometimes articles contradict each other. We knew that many readers would hate the idea of pebble reactors, but we also thought it noteworthy that MIT students were still holding on and reinventing what some citizens think is an extinct dinosaur. Can we redesign a failure and make it work? My personal take is that all currently designed nukes have had unexpected difficulties and unfulfilled promises. We covered many of them in the boxes accompanying the article. Imperfections in pebble production, waste processing and disposal issues, lack of experience with gas turbines using helium, past breakdowns with similar designs, and subsidies under the Price Anderson Act all portend unexpected difficulties. I felt that the title, "The Politically Correct Nuke," contained enough irony to suggest my doubts. Thanks for the websites. The South African critique (South Africa is where the new pebble nukes are happening) is one of the best.

Toto Flush

In the Summer 2000 issue, Peter told us the best low flow toilet was by Toto. Current issue has what *Consumer Reports* thinks, sans elucidation. Clarification? Thanks.

Peace,
Dave Smalley
By email



Toto Low-Flush Toilet, Toto USA.

Peter Warshall responds: I still go for Toto toilets. Oddly, *Consumer Reports* did not rate them. They are 1.6 gallons, but have a fine jet system and wider trap for better flushing (not a jimmed five-gallon flusher). If you can stand the noise, I also trust the pressure-assisted toilets and, for big bucks, try the Toto G-max selection.

Wind

Dear Peter Warshall,

I am most pleased that you devote a considerable section of the Winter issue to renewable energy, especially to wind energy. However may I perhaps suggest that there are a couple of misconceptions in the otherwise interesting article by Mr Cashman.

Four main influences were *vital* for this development—as opposed to the previous “top-down” approach as practiced by the USA and Western Germany (and indeed at one stage by the Danish government and the big Danish power generating utilities).

1. Alternative energy enthusiasts, students, grassroots groups, alternative “lifestylers,” etc.
2. Local school and college teachers.
3. Local small-scale machine and engineering shops, blacksmiths, etc. supplying agriculture.
4. A responsive and favorable political support and a government with a system responsive to small-scale grass-

root lobbying, with limited funding available for purchasers/consumers.

I am pleased to note that Mr. Cashman dwells at length on the question of “public awareness and support,” but two of his main points—“lack of good technology” referring to the USA wind energy development and “sufficient capital”—are perhaps a little misleading.

The USA wind energy industry in the late 1970s and early 1980s was based on good high-tech aerospace technology and industrial know-how, with a heavily government-supported top-down research contract approach, in contrast to the bottom-up nontechnical, slow-but-sure and reliable “Danish home-made garage technology.”

This Danish approach totally resulted in the adoption of the correct technological solution path, as practiced by the shop-floor blacksmiths and other tradesmen from Danish agricultural machine shops, assisted by inputs from a couple of young self-taught former students making standard components.

These machine shops produced the reliable energy-production track record that so amazed the hard-nosed Californian investors and resulted in the huge orders giving the initial input to the take-off of the industry.

Danish government financial support was mainly supplied not to the manufacturer or the producer, but instead was given to the purchaser.

It is interesting to note that this is the same approach that was utilized—with basically the same four interest groupings—in the first ultra-rapid development of wind technology and the wind industry for power generation almost a thousand years ago in England.

Vast inputs of capital without an essential popular and decentralized “grassroots” support will undoubtedly



result in a continuation of the policy of big US and other international auto and oil companies in their pursuit of fuel-cell technology powered by petroleum products rather than a more direct, lower-cost and more relevant hydrogen solution.

With best wishes,

John Furze

By email

Ty Cashman responds: I am very grateful to Mr. Furze for providing the Danish background on what I call "the more seasoned and reliable wind turbine technology from Denmark" that made the California wind farms a success. My article did fail to point out the four causes of this good technology's coming into being: (1) renewable energy enthusiasts, (2) high school and college teachers, (3) engineering, machine, and blacksmith shops, (4) political support for small-scale development and purchase.

In the States during the late 1960s and the 1970s we had number (1) and, in the late 1970s, number (4). But the essential practical experience and realism of blacksmiths and agricultural machine shop designer/builders was largely missing for us. To my knowledge, only one vocational/technical school in America offered a small-scale wind turbine program in the 70s. This school's graduates became leading wind farm operators and government wind administrators when the movement took off.

It is clear now that the top-down, high-tech, aerospace approach to wind power was a failure in America. There were those of us "alternative lifestylers" in the mid-70s who were telling state and federal governments that you cannot start big with wind energy. But even we were seduced by the lightness and flexibility of helicopter-derived designs. The long historical experience of the Danish agricultural machinists and blacksmiths was required to provide the world with turbines equal to the power and turbulence of real winds.

Water

Dear Editor,

In the recent issue of the *WE* there is an article about a \$300 device for disinfecting drinking water with UV-radiation. The device is touted as a low-cost solution to the drinking water problems of the developing world.

I would like to point out to you Aftim Acra's report published by UNICEF in 1984 on his research on the solar disinfection of drinking water. (<http://almashriq.hiof.no/water/>) It is also worth noting that several international projects are now in the works on this method.

Solar disinfection of drinking water simply consists of putting a standard plastic clear water bottle filled with potentially infected tap or well water in the sun to be disinfected by radiation from the sky. Time of exposure varies from twenty minutes to several hours.

The resulting water is safe and cheap, especially considering that clear plastic bottles are often a source of pollution in developing countries.

Barre Ludvigsen

By email

Peter,

I must take issue with your comments about on-demand water heaters (Winter 2001). At the urging of magazines like *Whole Earth* and others, we had our home designed to use an AquaStar On Demand water heater for the bath, laundry, and kitchen.

In Latin America and Europe, building permit departments allow gas on-demand heaters to be in the same room as the faucet they are heating. In America, you can't have a gas on-demand water heater in your kitchen or bathroom. Consequently, the length of time between the demand and the response is *much* longer. It took at least three times as long to get hot water to the shower with the on-demand. The cold water still in the pipes has to flow out before the heated-up water arrives (contrary to what your article implies) and then it takes a while for the request-

ed water to heat up, and all the while water is flowing down the drain!

If one is washing dishes with a gas on-demand water heater not in the same room, one cannot turn the water on and off while rinsing. You have to let it run the whole time. Otherwise you have to go through the whole request-and-heat-up cycle over and over. This is an enormous waste of water and, quite likely, the fuel to heat it. I added an electric on-demand one under my kitchen sink to solve this problem, but it still took longer to deliver hot water than the traditional hot water heater half-way across the house! I have only so much water in my well and had to take the on-demand heaters out because I literally didn't have enough water or time to stand there and wait for hot water.

Frankly, my guess is that the on-demand system doesn't save much fuel because it doesn't store heated water in an insulated tank, and it uses a *huge* burner—much bigger than the burner in a regular water heater. To get my water use down to reasonable proportions, I had to go back to traditional-style water heaters. Perhaps on-demand could work in perfectly designed situations, but I wish we had not been misled by incomplete information from articles such as yours.

Peggy Randall

By email

CORRECTIONS

Winter 2001:

Typos crept into the address for Airwell Solar Distillers (p. 37). The correct address is PO Box 10963, Zephyr Cove, NV 89448.

We included Water Partners International on the list of nonprofits that install and operate UV Waterworks water disinfectors (p. 39). Water Partners informs us that they have not installed UV disinfection systems in any of their projects.

We regret the errors.

A NORTH AFRICAN BREEZE

swept through the *Whole Earth* office and brought Egyptian goddess intern Cherine Badawi to us. This issue has been blessed with her editorial and writing skills, (see page 26 for her interview with Joel Fay and page 88 for book reviews), organizational prowess, and positive energy. She spent many a stressful production-period-hour entertaining us with her guitar and voice and traveling stories. Cherine was born in the US of Egyptian parents, and—when not traveling the rest of the world—has alternated between Egypt and the US for most of her life. She moved to the Bay Area a couple of months ago from Cairo, where she worked most recently as a web editor. We are grateful for all of her help. —EP

IT'S A BIRD, IT'S A PLANE. IT'S SNOW!

Up north of San Rafael, in Petaluma, we awoke to a rare snowfall that closed schools and delighted kids of all ages on January 28. The last snow in Petaluma was thirty years ago! This may seem terribly mundane to readers in other parts of the US, but 5" of snowfall at sea level in the Bay Area is extremely unusual. Snowman building was the order of the day. —SG

WHOLE EARTH: WHO ARE WE ANYWAY?

That's one of those questions we at *Whole Earth* need to ask ourselves regularly, as times—and staffs and boards—change. So Chris Anderson suggested: Try to describe yourself in twelve words, or eight. Can you do it? Chris has a formidable publishing track record with Imagine Media and



Cherine having a hair-raising moment at the summit of Volcano Pacaya, Guatemala.

he's a *Whole Earth* reader, so we took his suggestion seriously. We were sitting around a table in the Falkirk mansion, and here is part of what we came up with (bear in mind, we've only just begun):

Mike: "*Whole Earth*: It's the future, stupid!"

Danica: *Whole Earth*: "Pathways to a positive future in a complex world."

Chris: "Complexity won't sell the magazine. How about, '*Whole Earth*: We cut through the crap?'"



Left to right: Drew Remy Soltis, Graham T. Marshall, and Dylan Remy Gamley helping us get out our end-of-year donor mailing. They were assisted by fellow Greenwood School students Lucinda Watson and Miranda Darley; and James Darley of the San Francisco Waldorf School. What a crew! Without them, we'd still be buried in envelopes.

Danica: "*Whole Earth*: Complexity simplified."

Mike: "*Whole Earth*: What you don't know can hurt you."

Danica: "It's about interconnect- edness. It's all connected."

Chris: "*Whole Earth*: Because we're all connected."

Mike: "Tools for a better life in a more livable world."

Chris: "The magazine wants to say, 'This thing is made by people with intelligence and a heart, who are working hard.'"

Danica: "*Whole Earth*: It's yours to change."

Chris: "Who is this magazine for?"

Mike: "Thirty years ago it was a magazine by and for us. Can the same magazine serve a new generation? Can it serve 20-year-olds?"

There's room in this dialogue for more voices. So join in. —DB

OOOPS!

Stephanie Guyer-Stevens, whom we introduced in last issue's Gossip (while managing to misspell her name), is back with us again this issue, helping with development, copy editing, and proofreading, and keeping us on our toes with her sharp eyes and sensitive reading. We're grateful for her presence, but still chagrined about the gaffe with her name. We should have asked her to proofread Gossip.

Peter Warshall at Large

Now that I've become editor at large, I have more time to return to the world, where I'll be reporting and scouting for story ideas for *Whole Earth*.

"At large" in January/February included a trip to Guanacaste, Costa Rica for the ALL Species Foundation. Through the window of Dan Janzen's Toyota, we watched a great white hawk flap against a perfectly blue sky, its cadmium yellow feet clutching a rose-red, five-foot-long racer.

But my goal there was to explore the microcosmos. Guanacaste has a microbiology observatory in the midst of a tropical forest, staffed by locals (some with only sixth-grade educations) who have become experts in isolating new species of soil fungi and in preparing caterpillars for examination in the search for unknown symbionts and parasites. The future of natural history—of the invisible majority of species and how they frame our lives—will unfold from these para-ecologists and maniacally focused taxonomists.

Then back to California for a conference on ecological medicine, including many friends (e.g., *Whole Earth* editorial board member Sharyle Patton, Kenny Ausubel of Bioneers, Michael Lerner of Commonweal). These folks are charting a new course. From now on, medicine must identify two patients—the human and the Earth—to be diagnosed and treated simultaneously. From mostly nature-focused (watershed restoration) to mostly human-focused (medicines derived from locally surveyed neighborhoods), ecological medicine is defining itself as a new quest to find tools such as home toxic tests similar to pregnancy tests, cheaper testing for the "body burden" of toxic buildup (especially in mothers' milk), and common measures for healthy ecosystems and human bodies.

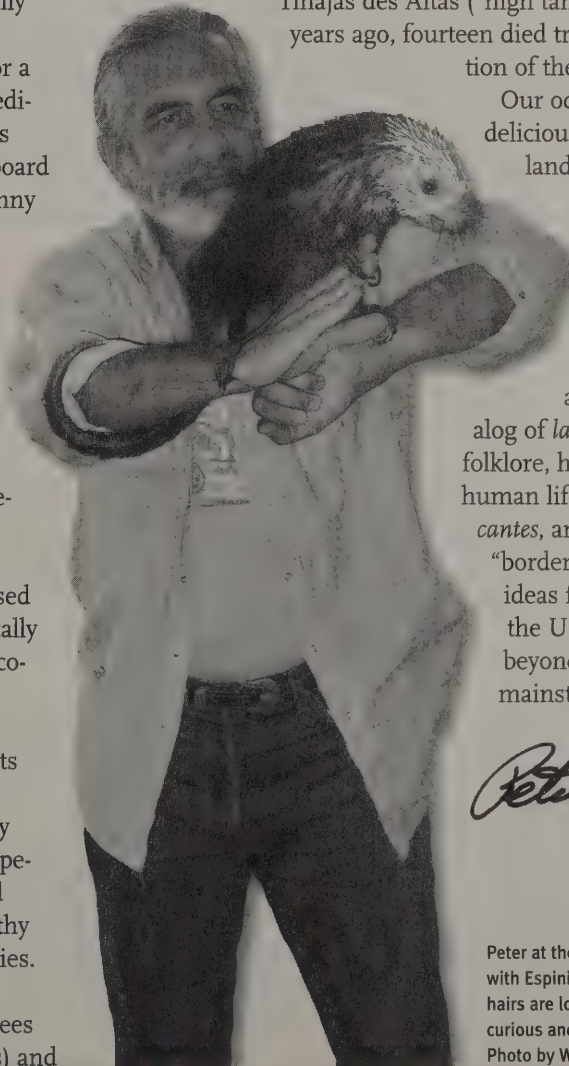
Then off to a meeting on improving the lives of refugees (especially in Afghan camps) and

to ensure more "sustainable" repatriation for refugees when they return home or permanently relocate. The meeting was held by Rocky Mountain Institute and Carebridge, under the guidance of Naval Commander Eric Rasmussen.

I had spent time in the Ethiopian hunger camps, and served the meeting as a "reality checker" on too-idealistic dreams. I kept thinking of a seven-year-old boy in the Ogaden, lowered into a twenty-foot-deep well, holding his goat bladder canteen against the largest trickle in the rocks, then yelling up each time it filled. The bladder, hauled up, kept his camel from dying of thirst. He spent three to four hours each day collecting trickles. The well site was strewn with dead animals. More on refugees, displaced persons, and diaspora in a coming issue.

In between conferences, Point board member Diana Hadley and I left Tucson for the harshest desert in North America, the Camino del Diablo. I wanted to viscerally connect the geography of northern Mexico to southern Arizona and see the Tinajas des Altas ("high tanks") where, just a few years ago, fourteen died trying to cross this section of the Sonoran Desert.

Our odd excursion featured delicious food in a waterless land, beautiful night skies crossed by border patrol helicopters, ravens, and ravaged hope. We hope to find the means to bring you a *Whole Earth* mini-catalog of *las fronteras*—the music, folklore, health, human and non-human life, vividness, *narcotrafficientes*, and the illusion of "borders"—with tools and ideas for understanding the US/Mexican boundary beyond what makes it into mainstream media.



Peter Warshall

Peter at the Guanacaste Conservation Area in Costa Rica, with Espinita, a Mexican hairy porcupine. Note that black hairs are longer than yellow short quills. She's sweet and curious and smart and cuddly. Who could want more?
Photo by Winnie Hallwachs.

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ISSUE 107 THANKS

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You Blew Us Away!

In response to our year-end appeal, the *Whole Earth* readers listed below contributed more than \$40,000 to help cover the quarterly deficit of the magazine, and the final figure isn't in yet. We were overwhelmed. The amazing thing about this is that, to save money, we only mailed to 5,000 subscribers. For the next issue, we plan to finish the job. Thank you one and all; you inspire us. (And if you gave but aren't listed, bear with us; the results are still being compiled.)

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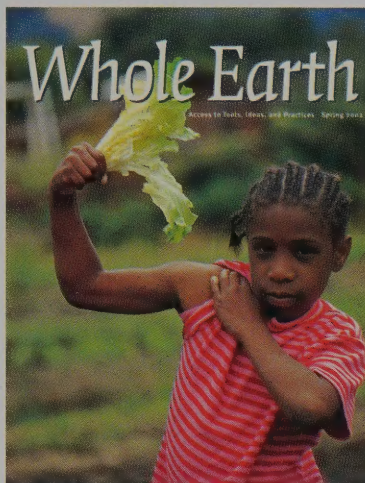
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or



19 x 25"

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Prices include UPS Ground shipping, tax & handling

Select Shirt Size xxl xl l m s

I would buy a similar hemp shirt if it was available at around \$80. yes no

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